

SOFTWARE TERMS AND CONDITIONS:  
AN EVALUATION OF CURRENT STATUS  
AND FUTURE TRENDS

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INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions. Continuing services are provided to users and vendors of computers, computer-related products and services.

The company carries out in-depth research. Clients on import and export members analyze market data, then develop innovative ideas. Clients receive access to data on market trends and continuous coverage.

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Formed in 1974, INPUT is a leading international firm. Clients include some of the largest and most prominent companies.

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**SOFTWARE TERMS AND CONDITIONS:**

**AN EVALUATION OF CURRENT STATUS AND FUTURE TRENDS**

**PREPARED FOR:**

**INTERNATIONAL BUSINESS MACHINES CORPORATION**

**DATA PROCESSING DIVISION**

**DECEMBER 1979**

**INPUT LIBRARY**



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**SOFTWARE TERMS AND CONDITIONS:  
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## I INTRODUCTION



## I INTRODUCTION

### A. PURPOSE AND SCOPE

- This report was prepared by INPUT as a custom study for IBM Data Processing Division, Commercial Analysis Department, White Plains, New York.
- It is an in-depth extension of a previous study done by INPUT as part of the Market Analysis Service (MAS) in August, 1979, entitled "Opportunities In Marketing Systems Software Products."
- The objective of this study is to determine the current status of changes that have occurred in the terms and conditions associated with the marketing of software products in the United States marketplace within the last 1-2 years. In that the software and related maintenance and education services are delivered in a variety of methods, information has been developed to reflect this distribution.
- The composition of the marketplace has been analyzed in terms of:
  - Vendors of large scale hardware systems, such as:
    - . Burroughs.
    - . Honeywell.
    - . Univac.
    - . NCR.
    - . Control Data.
    - . Amdahl.
  - Vendors of small scale hardware systems, such as:
    - . Digital Equipment Corporation.



- . Hewlett-Packard.
  - . Data General.
  - . Prime Computer.
  - . Wang Laboratories.
  - . Tandem Computer.
  - . Univac/Varian.
  - . Honeywell.
- Vendors of intelligent terminal systems, such as.
- . Datapoint.
  - . Northern Telecom/Data 100.
  - . Nixdorf.
  - . Texas Instruments.
- Independent software vendors, such as:
- . Informatics.
  - . Cincom.
  - . Management Science America.
  - . Applied Data Research.
  - . University Computing Company.
  - . SDI Associates.
  - . Cullinane.
  - . Pansophic.
  - . MRI Systems.
  - . Mathematica.
  - . Software AG.
  - . Computer Associates.
  - . The Computer Software Company.
  - . Turnkey Systems.
  - . National CSS.
  - . Computer Sciences Corporation.
  - . System Development Corporation.

- For hardware vendors, the software terms and conditions were analyzed as they apply to specific models or classes of machines, in order to distinguish changes in terms and conditions over a period of time.
- The intention has been to determine the relationship of software pricing strategy as it relates to and affects hardware strategy.
- Emphasis has been placed upon any flexibility that exists in negotiating software terms and conditions under specific circumstances. Exceptions to standard terms and conditions were explored and analyzed.

## B. METHODOLOGY

- INPUT conducted 25 telephone interviews for this project.
  - Four interviews with vendors of large scale systems.
  - Five interviews with vendors of small systems.
  - Three interviews with vendors of intelligent terminal systems.
  - Thirteen interviews with independent software and remote computer services vendors.
- The interviews were conducted during the first two weeks of December, 1979, based on a questionnaire jointly developed by IBM and INPUT and approved by IBM.
- Interviews were conducted with knowledgeable and authoritative representatives of the vendor firms, at the level of President, Vice President of Marketing, Director of Product Development, Director of Software Marketing, Product Manager, and similar titles.

- In those few cases where specific information was stated by the respondent to be proprietary in nature, it has been deleted from any materials delivered to IBM. In other cases, respondents gave permission for the information to be included anonymously in the study, and this restriction has been observed.
- Information developed has been tabulated and arrayed or summarized at the direction of IBM, and forms the basis for the other chapters of this study. A presentation of the material contained therein was presented orally to IBM staff at White Plains on December 21, 1979 and constitutes the major portion of this final report.



## **II EXECUTIVE SUMMARY**



## II EXECUTIVE SUMMARY

### A. FINDINGS-OVERVIEW

- Terms and conditions of software have gone through a major change in the last few years, from primarily "bundled" single pricing for total systems, to primarily "unbundled" separate pricing of hardware and software today.
  - A few companies still offer single pricing, but are re-evaluating their position.
  - Honeywell announced separate pricing this year.
  - NCR and some of the non-mainframe vendors are expected to announce new pricing policies in 1980.
- Once separate pricing (or other changes in terms and conditions) is announced, these changes are applied uniformly to both old and new products.
  - The only exceptions are older products that are still under contract. New sales of old products generally follow the new terms and conditions, but customers can choose either the old or new option.
- Phase two of unbundling, where licensing, installation, maintenance, and education are each priced separately, has begun; but there is not yet uniformity of practices throughout the industry.
- Respondents expressed a level of concern that software pricing should be equitable both to vendor and user, and should more closely relate to the cost of developing and maintaining the software or providing the installation or education service, as well as the value of the user of the product or service.



- Specifically, vendors expressed the need to reduce labor intensive costs, through techniques such as:
  - User installed software.
  - Hotline for product fixes.
  - Remote software diagnostic capability.
  - Modular pricing of education.
  - Greater use of video courses.
- Several vendors expressed interest in metered usage charges for software, but believe IBM will have to set the example for the concept to be accepted.
- Most vendors license their products to a particular CPU by serial number, although only one vendor claims to enforce this internally.
  - Other vendors believe that CPU licensing is desirable but impossible to enforce, and license to the site instead.
- Copyrighting and carefully worded contractual obligations are felt to be the best protection against misappropriation of software products, but most vendors are also firmly opposed to the release of source code.
  - Two software vendors have placed their source code in escrow with a third party, to be released to clients in the event of the vendor's bankruptcy or other condition that would make it impossible to maintain the product.
  - Good faith of the clients and threats of legal action are heavily relied on as enforcement measures against copyright and licensing abuses.
  - One vendor claims its software will self-destruct if used on other than the licensed facility.

- There is a clear trend by hardware vendors, from mainframes to intelligent terminal systems manufacturers, to offer a full line of software.
  - The larger independent software vendors are also broadening their product lines, either by development or by acquisition of complementary products. There does not appear to be any clear trend yet to link products together as a package with a single price.
- Discounting of software licensing for multiple sites or multiple CPUs is a common practice among the independent software vendors, whereas hardware vendors are inclined more toward dollar volume discounts if they give discounts at all.
  - Discounting is felt to be a "necessary evil" by struggling software vendors, but a practice to be eliminated as soon as financial stability can be achieved.
  - "Price cutting" is considered to have caused the demise of many software firms.
- Rather than offer discounts per se, smaller firms (both hardware and software) will use other terms and conditions as negotiating tools; e.g., furnish the product at the standard price, but include more "free" education and maintenance.
- All hardware vendors offer on-site maintenance of software, either included in the license fee or for a separate additional charge. Few software vendors offer this service, although many will do it at their own discretion, if there is no other alternative for correcting bugs.
- Central maintenance plans are often available, but maintenance discounts are rarely used, even in those cases where there is a license discount for multiple sites or multiple copies of the software.

- Specific summaries in each of the subject topics are contained in the following sections.

## B. LICENSING

- Distinctions in terms and conditions between OEM's and End Users take three forms:
  - OEM's generally receive higher discounts because of higher volumes of business.
  - OEM's can purchase products from some vendors with or without software, with or without maintenance, and with or without education.
  - OEM's may pay a lower license fee, plus a royalty on each system that they sell. OEM's are more closely controlled than End Users as to the number of licenses they obtain.
- Software products are licensed only as a total package by:
  - DEC (Languages require the operating system).
  - Wang Laboratories (Report generators require a compiler).
  - Cullinane and MRI license products separately, but many can be used only with the central DBMS.
  - Anonymous software vendor (15) sells two subsidiary products only if the operating system is also obtained.
- Financial incentives for customers to upgrade from one licensed product to another are not generally offered, with the following exceptions:



- DEC offers free upgrades the first year, thereafter charges less than the (new) license fee.
- Hewlett-Packard offers financial incentives to upgrade if software support is also obtained, otherwise not.
- Wang Laboratories will negotiate a discount for the more expensive applications packages if used in combination.
- Anonymous intelligent terminal systems vendor (07), on a case by case basis, may give up to full credit for the less sophisticated product when upgrading.
- Anonymous software vendor (13) offers full credit for prior payments when upgrading to a more sophisticated system.
- Anonymous software vendor (15) applies 75% of lease to purchase price, and credits 100% of one operating system to a higher version.
- Most vendors provide only a single copy of documentation free with their software. Companies that provide more than one copy are:
  - CDC, ADR, Computer Associates, and two Anonymous vendors -2 copies.
  - Software AG - 3 copies.
  - Pansophic - 4 copies.
  - Turnkey Systems and one Anonymous vendor - 5 copies.
  - MRI - 6 copies.
  - Cullinane and NCSS - 10 copies.

- One Anonymous vendor includes documentation in machine readable form, and user can print as many copies as desired.

### C. INSTALLATION

- The general rule is for hardware vendors to offer no acceptance period on software, while software vendors generally do offer a 30-day acceptance period.
  - Sperry-Univac and Control Data Corporation offer a 90-day acceptance period, and Amdahl offers 30 days.
  - Software AG offers a 15 day period, one Anonymous software vendor offers a 60 day period but charges the monthly fee, and two Anonymous software vendors offer no acceptance period.
  - MRI Systems and National CSS offer 30 day acceptance periods to government clients only.
- Warranties are frequently offered, sometimes only while the product is under maintenance. Warranties normally provide only for making the product perform according to published specifications.
  - Honeywell, Univac (mainframes and minis), Tandem, Nixdorf, Northern Telecom, and the Anonymous software vendor do not warranty their software.
- Support services are almost always offered by hardware vendors, usually for a separate fee. They are offered by only half the software vendors, and almost always for a separate fee.

#### D. MAINTENANCE

- Maintenance is usually included in the license fee or a required separate charge for both hardware and software vendors. The most notable exceptions are in the case of a paid-up license from software vendors, where maintenance is an optional separate charge.
- When a required or optional separate charge, it is usually for a minimum twelve month term.
- Only Amdahl, Tandem, and National CSS require a hardware maintenance contract as a prerequisite for software maintenance.
- Most vendors do not distinguish levels of maintenance by product or from a customer's point of view. but will do whatever is necessary to make the product work.
- Two vendors maintain all versions of a software product, but most maintain only the current and previous version. They stop maintaining the previous version after periods ranging from 90 days to one year.
- Vendors generally would not categorize an average trouble report turn-around time, but cited periods ranging from "immediate" to "several weeks," depending on severity of problem and criticality of application.
- New releases are offered at intervals ranging from two or three months to two years. Vendors do not necessarily distinguish between maintenance releases and new function versions, and may in fact term the latter as new products rather than new versions.
- Customers generally receive upgrades as part of their maintenance agreement, unless significantly new functions are added. In this case, new license agreements are required.

- Maintenance price discounts can be negotiated with one Anonymous software vendor for a purchase of ten or more copies. One other Anonymous software vendor offers a maintenance discount if the customer is entitled to a license discount.
- All other vendors for whom it is applicable offer a central maintenance plan, but no discounts per se. Negotiation of maintenance contracts and other terms and conditions is a technique used to offer a favorable package price without discounting the standard license price.
- If maintenance of software is included in the hardware price, it extends for the duration of the hardware contract.
- If on-site software maintenance is available, it is performed by a software engineer or the equivalent except in the case of Anonymous software vendor (25), which uses the account manager.
- Charges for on-site maintenance were disclosed by the following vendors:
  - Univac (mainframes), \$70/hour.
  - Univac (minicomputers), \$48/hour, \$320/day, \$1,600/week, \$5,000/month.
  - Tandem, 1% of license fee or negotiable.
  - Nixdorf, \$40/hour.
  - Anonymous (13), \$400 or \$650/day, depending on skill level.

#### E. EDUCATION

- All hardware vendors provide education at either the vendor's or the customer's site. Five software vendors provide it only at the customer's site.



- Instruction manuals and audio/visual materials are frequently, but not always, furnished.
- Only Nixdorf, Pansophic, Computer Associates, and two Anonymous software vendors (24 & 25) never charge a fee for education.
  - All of the software vendors, however, provide free education at the initial installation or with a purchase license.
  - None of the other hardware vendors provide free education.
- Education discounts are available only from two of the Anonymous software vendors.
- All but Northern Telecom, Computer Associates, National CSS, and Anonymous software vendor (24) have user groups, but some groups are not run by the vendors and/or have varying fees and services.



### III COMPANY PROFILES



## COMPANY PROFILE

## TYPE OF SOFTWARE OFFERED:

All categories, each with separate license fee. On Level 66 computers, any or all software except applications software can also be included in the hardware price.

## LICENSE TYPE:

Applications software has a one-time charge plus a monthly license fee.

## LICENSED TO:

CPU serial number.

## DISCOUNTS AVAILABLE:

None.

## INSTALLATION AVAILABLE:

Separately charged, by software engineer.

## COPYRIGHT/SOURCE CODE:

Yes/Not now, has happened for extra fee occasionally in the past.

## WARRANTY:

No. No acceptance period.

## SUPPORT:

Full range of services available for separate charge.

## MAINTENANCE:

Included for all but applications software, which has an optional separate monthly charge, twelve months minimum. Provides all services, but no enhancements. One year of maintenance available on old version after new version appears, but not a contract. For application software, contract is being considered. Third party software occasionally provided, no maintenance available. On-site maintenance available for all other categories at a negotiated price, provided by field program department.

## EDUCATION:

By fee, at customer's or vendor's site, including instruction manuals and audio/visual materials. No discounts. User group, free.

## COMMENTS:

Rarely, the operation system for Level 66 has a license agreement but no separate fee when obtained with the hardware by an OEM. There is no active marketing to OEMs.

IBM 4300 brought most significant change in unbundling of operating systems as well as all other software.

Customer responsibility has been increased significantly with regard to installation practices, especially by IBM and somewhat by HIS.

Education is seeing a higher level of activity, no other changes.

Would not comment on future directions.



## SPERRY-UNIVAC (MAINFRAMES)

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories; assemblers, programming and conversion aids provided free or included in license fee for operating systems.

#### LICENSE TYPE:

Annual payment; paid-up license or annual payment for applications software.

#### LICENSED TO:

CPU serial number.

#### DISCOUNTS AVAILABLE:

Multiple CPUs/single site; educational institutions.

#### INSTALLATION AVAILABLE:

Yes, part of license fee, by software engineer, amount determined by Sperry-Univac.

#### COPYRIGHT/SOURCE CODE:

Not copyrighted, source code normally provided.

#### WARRANTY:

None. Ninety day acceptance period.

#### SUPPORT:

Design, programming available for separate charge. Data center and supervisor modification included in license fee.

#### MAINTENANCE:

Included in license fee. May be full service (including on-site assistance and feature enhancements), regular service (including on-site assistance, or maintenance via symbolic corrections in new releases and updates only. Not provided for old version more than six months after new version. None provided for programming/conversion aids. On-site maintenance by software engineer charged at \$70/hr.

#### EDUCATION:

By fee, no discounts available. Provided at customer's or vendor's site, including manuals and audio/visual materials. User group, membership fee.

#### COMMENTS:

Prior to 1979, software license, support, and maintenance were included in hardware price. Changed to keep pace with industry practice and to keep revenues more in line with costs. Ditto for education.

Installation has been and will be simplified to keep costs down. Remote diagnostics will be used more extensively. Education will continue to be charged separately, and will make more use of CAI.

# CONTROL DATA CORPORATION

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

All categories.

### LICENSE TYPE:

Paid-up license; plus monthly usage fee for compilers and application software.

### LICENSES TO:

CPU serial number.

### DISCOUNTS AVAILABLE:

Volume.

### INSTALLATION AVAILABLE:

Yes, for extra fee. Amount charged depends on expertise level required, as determined by CDC.

### COPYRIGHT/SOURCE CODE:

Yes/Provided for extra fee.

### WARRANTY:

Only as part of maintenance license, will perform to published product specifications. Ninety day acceptance period.

### SUPPORT:

Full range of services available for separate charge.

### MAINTENANCE:

Optional monthly payment for minimum twelve months. Available on old version for one year after new version appears, or two years if no successor is announced. On-site contract can be negotiated with separate field analyst division. Fixes provided by phone or in next maintenance release.

### EDUCATION:

By fee, or by credit with paid-up license; no discounts available. Provided at customer's or vendor's site including manuals and audio/visual materials. User group, membership fee.

### COMMENTS:

Went "unbundled" in 1971. Separate field analysis group for software maintenance; education provided by CDC Education Company. Revenues thereby more directly related to costs. Software installation streamlined by "load and go" technique to reduce costs, will be used more extensively.

Software remote diagnostics and corrective action via telecom lines will be offered, as will education via CAI and prompting mode on terminals.

## AMDAHL

### COMPANY PROFILE

**TYPE OF SOFTWARE OFFERED:**

All categories, including IBM public domain software; no application software.

**LICENSE TYPE:**

One year lease.

**LICENSED TO:**

CPU serial number.

**DISCOUNTS AVAILABLE:**

None.

**INSTALLATION AVAILABLE:**

Yes, free or part of license agreement, by software engineer, amount of time determined by Amdahl.

**COPYRIGHT/SOURCE CODE:**

Yes/Source code never provided.

**WARRANTY:**

Yes, to perform to published specifications. Thirty day acceptance period.

**SUPPORT:**

Data center and supervisor modification available, included in license fee.

**MAINTENANCE:**

Included in license fee, provides remedial and performance tuning services plus some applications design assistance for AIDS (Amdahl Internally Designed Software). IBM software maintained by PTFs and normal releases, and is included in the hardware price. On-site maintenance is available at no charge, but at Amdahl's discretion.

**EDUCATION:**

By fee, no discounts available, at customer's or vendor's site, including manuals and audio/visual materials, User group, no charge.

**COMMENTS:**

Amdahl enhancements separately charged, IBM public domain software included in hardware price. Will develop more of own software and charge separately for it as IBM withdraws more from public domain.

Maintenance from a centralized support center is being considered, and will be charged separately, similar to IBM.

Market for education courses in growing, especially for applications programmers needing better conversions skills.

# DIGITAL EQUIPMENT CORPORATION

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

All categories, but assemblers, programming/conversion aids, and all utilities are included as a package with the operating system.

### LICENSE TYPE:

One time fee, can be with or without support services, with or without manuals.

### LICENSED TO:

CPU serial number.

### DISCOUNTS AVAILABLE:

Volume.

### INSTALLATION AVAILABLE:

Free with Type A license, charged separately otherwise, provided by software engineer.

### COPYRIGHT/SOURCE CODE:

Yes/Provided to government or OEMs, usually at extra cost, on microfiche or machine readable media.

### WARRANTY:

Yes for 90 days, to perform to published product specifications. No acceptance period.

### SUPPORT:

Design, programming, modification of software available for separate charge.

### MAINTENANCE:

Level 3 included with Type A license; any level charged separately otherwise.

- Level 1 - provides product updates, newsletters, machine readable corrections or telecom downline patch.
- Level 2 - provides above plus free phone number with guaranteed response time of one hour or less.
- Level 3 - provides above plus on-site assistance.

Maintenance of old version normally provided for one year after new version appears, but some flexibility for individual circumstances. On-site maintenance included in Type A license or available at separate price.

### EDUCATION:

By fee or as credit with license. User group, membership fee.

### COMMENTS:

OEMs can purchase hardware with or without software, or can purchase software at a later date.

Language offerings require use of the operating system.

Type A license provides binary media, manuals, and support (including maintenance.)

Type B license provides binary media and manuals.

Type C license provides binary media only.

Support is provided by PL-90, a separate DEC department that sells software consulting. Lease, paid up license, and rental of software being considered at DEC. Auto-updates and remote diagnostics and corrections will become more widespread. Education will be more computerized and will be a new revenue source.

## HEWLETT-PACKARD

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories. All language, communications, and applications software separately priced since August 1979. Other software included in hardware price.

#### LICENSE TYPE:

Purchase.

#### LICENSED TO:

User system.

#### DISCOUNTS AVAILABLE:

Volume, multiple CPUs/single site.

#### INSTALLATION AVAILABLE:

Free or part of license agreement, by software engineer, amount determined by Hewlett-Packard.

#### COPYRIGHT/SOURCE CODE:

Yes/Never.

#### WARRANTY:

Yes, for 90 days, to execute as specified. No acceptance period.

#### SUPPORT:

Design, programming, testing, modification, operations support available for charge.

#### MAINTENANCE:

Optional, three month minimum for purchased software.

Level 1 (Software Subscription Service - SSS) provides fixes and updates by letter or phone.

Level 2 (Customer Support Service - CSS) provides SSS plus on-site assistance. One hour service by phone.

Other maintenance included in hardware price.

#### EDUCATION:

By fee, at customer's or vendor's site, including manuals. User group, membership fee. On-site consulting for new users of DBMS.

#### COMMENTS:

Will move toward separate pricing for all software, but not for installation. More firmware will be used to allow diagnostics and software repair via telecom lines. Course offerings will be broadened.



## WANG LABORATORIES

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories, but assemblers, utilities, and programming/conversion aids are included with operating systems. Compilers, communications, data management/-report generators, and applications software are all separately charged.

#### LICENSE TYPE:

Monthly payment, paid-up license.

#### LICENSE TO:

CPU serial number.

#### DISCOUNTS AVAILABLE:

Volume, OEMs only.

#### INSTALLATION AVAILABLE:

Yes, free or part of license fee, by software engineer. Considered part of maintenance.

#### COPYRIGHT/SOURCE CODE:

Yes/No, except applications software for an extra fee.

#### WARRANTY:

Yes, for 90 days, to conform to specifications. No acceptance period.

#### SUPPORT:

Data center, included in license fee. Supervisor modification for only certain specialized products available for separate charge.

#### MAINTENANCE:

Included in hardware price for software so included. Optional for other products at a separate monthly charge for twelve months minimum.

Full service provided, including on-site if necessary at Wang's discretion. Includes minor enhancements. Provided by software engineer.

#### EDUCATION:

By fee, or credit with license for applications packages, at customer's or vendor's site, including manuals and audio/visual materials. No discount available. User group, membership fee.

#### COMMENTS:

Will move even more to separately priced software to meet industry practices. Installation on-site becoming more common, and will be separately priced. More separately priced levels of maintenance will be offered. Additional training facilities will be developed.

## TANDEM COMPUTERS

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories except applications software. Utilities included in hardware price, otherwise software is separately priced. Communications software can be included in hardware price if negotiated.

#### LICENSE TYPE:

Paid-up license.

#### LICENSED TO:

User firm (typically), can be to site or CPU if desired.

#### DISCOUNTS AVAILABLE:

None.

#### INSTALLATION AVAILABLE:

Yes, part of license agreement for original software, separately charged for add-on software, usually performed by hardware engineer.

#### COPYRIGHT/SOURCE CODE:

Yes/No.

#### WARRANTY:

No. No acceptance period.

#### SUPPORT:

Full range of services available, included in license fee.

#### MAINTENANCE:

Required separate monthly payment, first three months free to end users. Provided on old version for six months after new version appears. On-site aid is available if negotiated in hardware contract, (typically 1% of license fee) otherwise provided by phone and/or on-line diagnostics by software engineer.

#### EDUCATION:

By fee, or can be negotiated credit with license. Provided at vendor's site (negotiated is at user's site), including instruction manuals and some audio/visual materials. User group.

#### COMMENTS:

Terms and conditions for software show considerable variation on negotiated contracts.

Licensing for software enables allocating software development overhead costs to large users. Maintenance has been separately charged since October 1978. Sees software costs to users increasing over time as more software is available.

# SPERRY-UNIVAC (MINICOMPUTER OPERATIONS)

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

All categories except programming/conversion aids. All categories currently include some separately licensed products and some products included in the hardware price. The trend is toward all separately licensed software.

### LICENSE TYPE:

Five year lease, purchase.

### LICENSED TO:

CPU serial number

### DISCOUNTS AVAILABLE:

Volume (not applicable to DBMS or applications software).

### INSTALLATION AVAILABLE:

Yes, free or part of license, by software engineer, for as long as it takes to bring up and test the system.

### COPYRIGHT/SOURCE CODE:

Yes/Only for non-proprietary purchased software; no extra fee.

### WARRANTY:

No. No acceptance period.

### SUPPORT:

Design, programming, and supervisor modification available for separate charge.

### MAINTENANCE:

Included with license fee, either lease or purchase. Provides fixes and updates. Fixes normally returned by phone, letter, next release. On-site aid available at \$48/hour, scaled to \$5,000/month, performed by software engineer.

### EDUCATION:

By fee, at customer's or vendor's site. No discounts. User group, membership fee.

### COMMENTS:

Vendor declined to comment.

## NIXDORF COMPUTER

### COMPUTER PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories except programming/conversion aids. All software separately priced since 1978. OEMs pay lesser fee for applications software license, plus a royalty fee.

#### LICENSE TYPE:

Monthly payment. Applications software also must pay a one-time fee to help offset development costs.

#### LICENSED TO:

CPU serial number.

#### DISCOUNTS AVAILABLE:

None, but prices, terms and conditions are negotiated.

#### INSTALLATION AVAILABLE:

Not available.

#### COPYRIGHT/SOURCE CODE:

Yes/Never.

#### WARRANTY:

No. No acceptance period.

#### SUPPORT:

Full range of services available for separate charge.

#### MAINTENANCE:

Included in license fee, handled by phone if possible, otherwise on-site at \$40/hour, performed by software engineer.

#### EDUCATION:

Free, at customer's or vendor's site, up to a limit of 10 people. If more must be trained, Nixdorf trains customer's instructors. Instruction manuals provided in latter case only. Amount of training typically required is minimal. User group, free.

#### COMMENTS:

Nixdorf feels customers want separate pricing for installation and maintenance, as well as the software license, in order to save money, but it ends up costing the customers more. Education in software specifics will continue to be a vendor responsibility.

# NORTHERN TELECOM SYSTEMS CORPORATION

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

All categories except applications software. All products offered with software included in hardware price.

### LICENSE TYPE:

Not used.

### LICENSED TO:

Not applicable.

### DISCOUNTS AVAILABLE:

None.

### INSTALLATION AVAILABLE:

Free, by software engineer.

### COPYRIGHT/SOURCE CODE:

Yes/No.

### WARRANTY:

No. No acceptance period.

### SUPPORT:

Supervisor modification and operations support available for separate charge.

### MAINTENANCE:

Included in hardware price. Handled by letter, phone, or on-site, Northern Telecom's discretion. On-site pricing is variable and proprietary as to the amount, but is provided by a software engineer.

### EDUCATION:

By fee, no discounts, at customer's or vendor's site. No user group.

### COMMENTS:

Not convinced of the historical justification for separate pricing of software, installation, and maintenance, but reevaluating own policies in these areas. Still sorting out strategies from merger of DATA 100 and SYCOR.



## ANONYMOUS (07) INTELLIGENT TERMINALS MANUFACTURER

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories except applications software. All are separately licensed, but operating systems can be included in the hardware price if desired. Software for any older systems which had been included in hardware price is no longer supported.

#### LICENSE TYPE:

One year lease, paid-up license with annual renewal.

#### LICENSED TO:

User firm.

#### DISCOUNTS AVAILABLE:

Volume.

#### INSTALLATION AVAILABLE:

Yes, part of license agreement except communications software which comes with or without installation. Performed by systems analyst.

#### COPYRIGHT/SOURCE CODE:

Yes/Available at very high extra fee.

#### WARRANTY:

Yes, for one year, to cover product fixes. No acceptance period.

#### SUPPORT:

Design and programming assistance for start-up problems provided free by field analyst, but separately charged thereafter and for applications support.

#### MAINTENANCE:

Included in license fee, except communications software can be obtained with maintenance optional for a separate monthly fee. Provided by phone for minor problems, on-site for major problems, at the vendor's discretion, by a software engineer.

#### EDUCATION:

By fee, at customer's or vendor's site, including instructional manuals and audio/-visual materials. Discounts available for large numbers of regularly scheduled students. User group, membership fee.

#### COMMENTS:

Simplified license from "per CPU" to "per User Firm" because easier to administer. Maintenance will begin to be separately charged in 1980, and will be separate for most offerings by 1985. Education provided by separate operating division.

# APPLIED DATA RESEARCH

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

Communications, programming/conversion aids, sort/merge/other utilities, data management/query/report generators.

### LICENSE TYPE:

One to three year lease, monthly payment, paid-up license.

### LICENSED TO:

User site.

### DISCOUNTS AVAILABLE:

Multiple sites, 20 to 50% discount.

### INSTALLATION AVAILABLE:

Free, by software engineer, one-half to five days depending on product.

### COPYRIGHT/SOURCE CODE:

Yes/On microfiche, user may not change the code.

### WARRANTY:

Yes, to perform to contract specifications. Thirty day acceptance period.

### SUPPORT:

Design, programming, and supervisor modification available for separate charge.

### MAINTENANCE:

Included in lease and monthly payment, optional separate annual fee for paid-up license. To restore maintenance after a lapse, must pay all back fees and upgrade to current level. Most maintenance performed by phone or mail. Only two releases maintained at a time. On-site maintenance only on an exceptional basis.

### EDUCATION:

Both free and fee, at customer's site. User group, membership fee.

### COMMENTS:

ADR predicts consolidation and merging of product lines by independent vendors as competitive response to IBM entering software field directly. IBM's implicit threat of refusal to maintain hardware that uses a foreign operating system threatens independent software vendors.

Installation of software is not difficult; it is the associated training that requires on-site personnel. Maintenance is a related issue that must be handled by designing "user-proof" software. Cost factors will force less on-site work by the vendor.

Improved techniques for educating the customers will result in a license fee that reflects the true cost of education, no installation fee and optional maintenance.

## CULLINANE

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories except operating systems, compilers and assemblers.

#### LICENSE TYPE:

One to five year lease, monthly payment, license to use (one-time payment, then annual 10% renewal which includes upgrades and maintenance). Leases also pay 10% renewal fee. Monthly payments do not, but do not receive training or support.

#### LICENSED TO:

User site.

#### DISCOUNTS AVAILABLE:

Multiple sites (25% for second and additional sites); multiple CPUs/single site are free for second and additional CPUs. Annual renewal is always full fee.

#### INSTALLATION AVAILABLE:

Yes, part of license fee, by software engineer, up to five days.

#### COPYRIGHT/SOURCE CODE:

No/Under special circumstances and signing of confidentiality agreement.

#### WARRANTY:

Yes, with annual renewal. 30 day acceptance period. Warranty covers freedom from defects caused by vendor, operation to specifications, guaranteed response to problems.

#### SUPPORT:

Design available for separate charge. Supervisor modification included in license fee.

#### MAINTENANCE:

Separate required charge for leases, optional for monthly payments, included in annual renewal fee for license to use. Old products are maintained as long as there are users. On-site maintenance available only by special arrangement. Bi-weekly maintenance newsletter contains all fixes, but phone and on-site aid are used at vendor's discretion.

#### EDUCATION:

Both free and fee, at customer's or vendor's site, including instruction manuals. No discounts. User group, membership fee.

#### COMMENTS:

Changed from prepaid license to annual renewal fee to avoid losing control of products' proprietary nature, and feel the industry will follow. Intend to continue offering license, installation, maintenance, and education in one fee. Users are more concerned with vendor support of a product than in the cost involved, whereas the continuing cost to a vendor after development is low, so subsequent profit margins are high.

# PANSOPHIC SYSTEMS

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

Compilers/assemblers, programming/conversion aids, sort/merge/other utilities.

### LICENSE TYPE:

Five year lease, monthly payment, paid-up license.

### LICENSED TO:

User site (changed from CPU because impossible to enforce).

### DISCOUNTS AVAILABLE:

Volume, multiple sites, multiple CPU's/single site.

### INSTALLATION AVAILABLE:

Yes, part of license fee, performed by System Prep group which also does training. Extends for 3-5 days.

### COPYRIGHT/SOURCE CODE:

Yes/No.

### WARRANTY:

Yes, for one year to be bug-free, error-free, fit the purpose for which it was designed, perform to published specifications. 30 day acceptance period.

### SUPPORT:

Will alter for specific purpose, minimum \$1,000 fee.

### MAINTENANCE:

Included with lease and rental, optional annual separate charge for paid-up license. Provides maintenance and non-functional enhancements. Full 24 hour phone service; all versions of product are maintained. If user has paid-up license without maintenance, must pay all back maintenance to be reinstated, but new license may be cheaper. Will negotiate this situation and may settle for half the maintenance. On-site maintenance not offered because too expensive.

### EDUCATION:

Free, at customer's site, including instruction manuals and audio/visual materials. User group, membership fee beginning 1980.

### COMMENTS:

Licensing has been based on what the market will bear, resulting in companies driving each other out of business through price-cutting.

On-site installation is expensive and will be eliminated rather than charging separately for it.

Maintenance is profitable for vendors at 15-20% of license fee, but users will do without it rather than pay more.

Education will rely more on vendor site or audio/visual courses and instruction manuals because too expensive to do at customer's site.



# MRI SYSTEMS CORPORATION

## COMPANY PROFILE

### TYPE OF SOFTWARE OFFERED:

Communications, data management/query/report generators.

### LICENSE TYPE:

1-5 year lease, monthly payment, paid-up license.

### LICENSED TO:

CPU serial number.

### DISCOUNTS AVAILABLE:

Multiple sites (20% and up); multiple CPUs/single site (50%).

### INSTALLATION AVAILABLE:

Part of license, one day, by software engineer.

### COPYRIGHT/SOURCE CODE:

No/No, except under special circumstances (government clients). Source code was escrowed with a bank when MRI was smaller.

### WARRANTY:

Yes, to operate according to specifications. Thirty day acceptance period for government clients, none for commercial clients.

### SUPPORT:

Design, programming, supervisor modification available at \$25-75/hour.

### MAINTENANCE:

Included in license fee for lease and monthly payment. Optional 10% of current list price for paid-up license. Must pay back maintenance to reinstate. Provides product enhancements plus hotline service, 8-5 Monday-Friday. Longer coverage costs more. Products maintained 90 days after new release, then users must pay for maintenance. Can access product for maintenance diagnostics (not corrections) via dial-in lines. No on-site maintenance available.

### EDUCATION:

Free at vendor's site, fee at customer's site. Includes instructional manuals and audio/visual materials. No discounts, but large users can train own staff via A/V materials. User group, membership fee.

### COMMENTS:

Seven years renewable license, changed from 50 year license to eliminate implication of ownership. Do not use CPU internal serial number for the same reason.

Predict sharp rise in software prices led by IBM, plus more specific software contracts to protect both the customer and the vendor.

Installation will have to be done by user or on the phone. Eventually installation, updates and maintenance will be done computer to computer over telephone lines.

Education on-site is too expensive and will be replaced by standalone video course with hotline support. User can pay for materials and then provide education in-house.

Acquisition of MRI by INTEL has enabled the company to "drive a harder bargain" in negotiated discounts and other terms and conditions.



## SOFTWARE AG OF NORTH AMERICA

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Communications, programming/conversion aids, data management/query/report generators, applications software.

#### LICENSE TYPE:

One to five year lease, monthly payment, annual payment, purchase.

#### LICENSED TO:

User site (address and floor number).

#### DISCOUNTS AVAILABLE:

Multiple sites (20% on lease, 50% on purchase). Multiple CPUs/single site are free.

#### INSTALLATION AVAILABLE:

Free if complete system purchased, otherwise \$2,000 fee, performed by field technician.

#### COPYRIGHT/SOURCE CODE:

Yes/No, it is escrowed with ICP Inc.

#### WARRANTY:

Yes, to perform to published specifications, subject to limitations spelled out in contract. 15-day acceptance period.

#### SUPPORT:

Design and data center support available at \$600/day.

#### MAINTENANCE:

Required separate charge provides maintenance and enhancements. Payable annually in advance, 5 - 10% of purchase price. Have remote software analysis capability that provides 7 minute service in 90% of cases, one day service on the rest. Occasionally will go on-site as last resort. Maintain two releases at a time, up to twelve months for the old one.

#### EDUCATION:

Free with purchase, otherwise by fee, at customer's or vendor's site, including instruction manuals and audio/visual materials. Users can purchase video tapes to use in-house. User group, free.

#### COMMENTS:

Software has been underpriced and firms have been driven out of business by price cutting. Independent vendors must offer quality products to convince market place to buy from them. Usage pricing is an interesting concept.

Fee for maintenance is an accepted practice now.

User groups are effective in requesting enhancements.

## COMPUTER ASSOCIATES

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Programming/conversion aids, sort/merge/other utilities.

#### LICENSE TYPE:

One to three year lease, monthly payment, paid-up license.

#### LICENSED TO:

User site.

#### DISCOUNTS AVAILABLE:

Multiple sites, multiple CPUs/single site.

#### INSTALLATION AVAILABLE:

Part of license, by software engineer, one day.

#### COPYRIGHT/SOURCE CODE:

No/No.

#### WARRANTY:

Yes, under maintenance, to perform to contract specifications. Thirty day acceptance.

#### SUPPORT:

None available.

#### MAINTENANCE:

Included in lease and monthly payment, 12% optional separate annual fee for paid-up license. Must pay back maintenance to reinstate. Handled by telephone, 85% of the time on the initial call. Stop maintaining old version one year after new version appears. No on-site maintenance available.

#### EDUCATION:

Half-day free at customer's site, includes instruction manuals and audio/visual materials. No user group.

#### COMMENTS:

Software firms no longer operating marginally and unprofitably. Through consolidation and acquisition they can now deal with the user on even terms and not be at their mercy. As they become more solid financially they will be able to use tougher prepaid licenses and better agreements so cash flow will not be so severe.

CA does not plan to charge separately for installation and education, since less than a half day is required and this is not a severe cost.

## TURNKEY SYSTEMS

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Communications, programming/conversion aids, data management/query/report generators.

#### LICENSE TYPE:

One to five year lease, monthly payment, paid-up license.

#### LICENSED TO:

User site.

#### DISCOUNTS AVAILABLE:

Multiple sites (20-50%).

#### INSTALLATION AVAILABLE:

Part of license, by software engineer.

#### COPYRIGHT/SOURCE CODE:

No/Only in extraordinary situations under special agreement.

#### WARRANTY:

Yes, under maintenance, to be up and running within two weeks and to perform to contract specs. Thirty day acceptance period.

#### SUPPORT:

Design, programming, and supervisor modification available for separate charge.

#### MAINTENANCE:

Included in lease and monthly payment, optional separate annual charge for paid-up license. Provides 24 hour phone service, can tie-in and remotely get a dump to analyze. Old version maintained for 90 days after new version appears. If on-site aid is required, there is an extra charge, but not normally required or available.

#### EDUCATION:

Free and fee, no discounts, at customer's or vendor's site, soon to include audio/visual materials. User group, membership fee.

#### COMMENTS:

Not yet a fusion between NCSS and Turnkey Systems, still receiving royalties for software offered on NCSS network. Turnkey Systems has done most of the software for NCSS 3200 system.

Turnkey intends its software to be so reliable that a "no support" option license will be available and desirable. Software will be user installed, with on-site installation an extra optional charge. Maintenance will provide a growing share of total revenues. Education will be a totally separate, "pay as you go" service that is modular and individually priced.

Contracts will have to be changed to eliminate implication that customers own the code; rather, that they are paying for the right to use it.

NATIONAL CSS  
COMPANY PROFILE

TYPE OF SOFTWARE OFFERED:

All categories, separately licensed, but hardware not available without software and vice versa. Code and hardware are interlocked.

LICENSE TYPE:

Three to five year lease, monthly payment, paid-up license.

LICENSED TO:

CPU serial number.

DISCOUNTS AVAILABLE:

Volume, multiple sites, multiple CPUs/single site (all subject to 25 - 40% discount).

INSTALLATION AVAILABLE:

Part of license. Site-prep people do both hardware and software installation and training, but will change to installation by maintenance personnel. Provides 10 days from SE, 5 days installation, 5 days more with NOMAD.

COPYRIGHT/SOURCE CODE:

No/No.

WARRANTY:

Yes, under maintenance, to perform to contract specifications. Thirty day acceptance period for government, none for other customers.

SUPPORT:

Design, programming, supervisor modification available for separate charge.

MAINTENANCE:

Included in lease and monthly payment, optional separate annual charge for paid-up license. Provides phone-in center plus regional maintenance centers. Can dial-in for diagnostics and repairs. Old versions supported for 90 days after new version appears. On-site maintenance not available.

EDUCATION:

Free and fee, at customer's or vendor's site, including instruction manuals and audio/visual materials. No user group.

COMMENTS:

IBM will lead in separately charging for licensing, maintenance, installation, and education.

NCSS will follow IBM's lead in maintaining via regional action centers. It is easier for a hardware/software vendor to offer remote diagnostics and repair for software than for firms that sell only one or the other.

Machines must be designed to accept new software without adjustment, as the 3200 does, to eliminate the on-site installation. Users must be supported to the extent that they can do their own maintenance whenever possible.

Education must be charged separately and used only if needed. It is so manpower intensive that it drives the cost up.



## ANONYMOUS (13) SOFTWARE VENDOR

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

All categories except operating systems and compilers/assemblers.

#### LICENSE TYPE:

One year lease, annual payment. License extended by smaller annual use fee.

#### LICENSED TO:

User site and CPU serial number.

#### DISCOUNTS AVAILABLE:

Volume (based on units, not dollars); wholesale to OEM's; non-profit organizations. Do not apply to applications software because sold one unit at a time.

#### INSTALLATION AVAILABLE:

Mandatory separate charge, by systems engineer. Flat fee includes on-site support and education of one day.

#### COPYRIGHT/SOURCE CODE:

Yes, worldwide/No, except occasionally for applications software.

#### WARRANTY:

Yes, covers error correction. Sixty day acceptance period, but no rebate of installation or monthly fee.

#### SUPPORT:

Professional services division can provide for a separate fee.

#### MAINTENANCE:

Included in lease. For annual payment it is an annual "use" fee. Provides full service, including on-site aid if necessary, at \$400 - \$650/day, depending on skill level of software engineer.

#### EDUCATION:

Included in installation price, by fee thereafter. Sliding scale discounts available. Provided at customer's site or regional training centers. Includes instruction manuals and audio/visual materials. User group, nominal membership fee.

#### COMMENTS:

Changed from perpetual license to one year license, made maintenance a mandatory annual fee to insure income for maintenance activities. These are becoming more expensive relative to basic price of software. Evaluating possibility of user paying for amount of services he needs. More education is required because of complexity of systems.

Licensing will become more restrictive and more expensive relative to hardware costs. Vendor is pursuing concept of microcode to meter the usage of software and charge accordingly, as is now done with telecommunications products. This is a problem with larger users who believe they should receive a discount when in fact they require a greater level of support. Vendor is looking to follow IBM's lead on this problem.

## ANONYMOUS (14) SOFTWARE VENDOR

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Communications, data management/query/report generators.

#### LICENSE TYPE:

25 year lease, monthly payment, annual payment.

#### LICENSED TO:

CPU serial number.

#### DISCOUNTS AVAILABLE:

Multiple sites, not applicable to TP product.

#### INSTALLATION AVAILABLE:

Yes, if requested. Free unless extensive consulting required (i.e., first time TP user).  
Provided by product support specialist or customer engineer.

#### COPYRIGHT/SOURCE CODE:

No/No. Names are trademarked.

#### WARRANTY:

No. No acceptance period.

#### SUPPORT:

3 days free consulting on DB product only. Additional services included in maintenance fee after the first year.

#### MAINTENANCE:

Optional separate annual charge after the first year, based on a percentage of the current sales price. Provides hotline service and on-site bebugging if necessary. Only one previous version exists, will be maintained as long as someone is using it. Maintenance discount can be negotiated for more than 10 copies.

#### EDUCATION:

Seven days free training or the equivalent over the first 90 days, fee thereafter. DB product has training screens built in. User group not run by vendor.

#### COMMENTS:

Have learned to write long-term leases. DDP will cause a need for multi-copy discounts. Some vendors, including IBM, are moving toward charging for usage and by size of machine.

Installation on-site is too expensive, and will move toward doing it by mail. Maintenance will be done via interactive debugging. Quality of documentation is very important.



## ANONYMOUS (15) SOFTWARE VENDOR

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Operating systems, data management/query/report generators.

#### LICENSE TYPE:

1-2 year lease, monthly payment, annual payment, purchase.

#### LICENSED TO:

User site.

#### DISCOUNTS AVAILABLE:

Multiple sites (25%), multiple CPUs/single site (50%).

#### INSTALLATION AVAILABLE:

Required separate fee under lease, included in purchase price. Performed by technical services staff.

#### COPYRIGHT/SOURCE CODE:

Yes/Never.

#### WARRANTY:

Yes, for 5 years to perform as documented. Lists contingencies for which the vendor will not be responsible. 30 day acceptance period.

#### SUPPORT:

Data center and operations support included first two years, 10% charge thereafter.

#### MAINTENANCE:

Included in lease price, first two years included in purchase price, 10% optional annual fee thereafter. Provides corrections by phone, letter, or on-site assistance as determined by vendor. On-site aid for additional charge is available. Maintenance discount is available if customer is entitled to product discount.

#### EDUCATION:

- Free at first installation, fee thereafter, provided at customers' site initially, regional centers or customer's site thereafter. User group, free.

#### COMMENTS:

Terms and conditions have had to be reformulated for protection of both customer and vendor as industry becomes more mature and sophisticated. Often terms are difficult to enforce because subjective judgements are involved.

IBM's new announcements will reinforce the stature of software, i.e., with regard to usage charges. Pricing of software will become as binding as hardware has been. Trend is to make it easier for the user to understand the software through education, to cut down the number of available options, reduce the mystery and allow him to use it in its functional environment.

## ANONYMOUS (24) SOFTWARE VENDOR

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Operating systems, programming/conversion aids, sort/merge/other utilities.

#### LICENSE TYPE:

2 year lease, monthly payment (except for operating system).

#### LICENSED TO:

CPU serial number.

#### DISCOUNTS AVAILABLE:

None.

#### INSTALLATION AVAILABLE:

Usually part of license, sometimes separately charged. Done by field systems engineer, typically takes three days.

#### COPYRIGHT/SOURCE CODE:

Yes/No.

#### WARRANTY:

Yes, to perform as specified in the documentation. 30 day acceptance period for some products only.

#### MAINTENANCE:

Included in the license fee, handled by new release of product. On-site assistance available as part of the license fee, performed by field systems engineer.

#### EDUCATION:

By credit with license, at customer's site, including instruction manuals and audio/-visual materials. No user group.

#### COMMENTS:

Paid-up and purchase licenses have been replaced by monthly licenses. Shorter term rentals are more popular.

Companies that are successful are the ones that provide on-site support. Training is an integral part of the package. Maintenance is assuming a larger percentage of the total dollar value (of the sale).

Industry generally looking to the example of IBM. Vendor has examined the idea of usage pricing, but has not found it very practical.

## ANONYMOUS (25) SOFTWARE VENDOR

### COMPANY PROFILE

#### TYPE OF SOFTWARE OFFERED:

Applications software.

#### LICENSE TYPE:

Paid-up license.

#### LICENSED TO:

User site, user firm, CPU serial number.

#### DISCOUNTS AVAILABLE:

Volume (i.e., multiple applications packages); multiple sites.

#### INSTALLATION AVAILABLE:

Yes, part of license fee, handled by account managers who also provide training, normally 40 hours altogether.

#### COPYRIGHT/SOURCE CODE:

No/Yes.

#### WARRANTY:

Yes, for one year. If maintenance enhancements continue, the warranty is renewable. It covers performing to the documentation. No acceptance period.

#### SUPPORT:

As needed, but redesign and testing is not necessary because the packages are widely used and proven.

#### MAINTENANCE:

Optional separate annual fee, typically 10-12%. Generally not done on-site. Can patch into user's computer. Some packages are sold for use on non-designated computers, and are not maintained by the vendor in that case.

#### EDUCATION:

Free, at customer's site or vendor's site, including instruction manuals and audio/-visual materials. User group.

#### COMMENTS:

Did more discounting a number of years ago when software packages were in their infancy.

Maintenance becoming more expensive relative to package price. May go to a monthly fee for licensing and maintenance. Usage pricing is not a practical proposition. May see more moves to package software with hardware (by software vendors).

Always look with interest at what IBM's doing.



#### **IV DETAILED TABULATIONS**





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## CATEGORIES OF SOFTWARE OFFERED BY HARDWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	X	X	X	X	X	X
	UNIVAC	X	X	X	X	X	X	X
	CDC	X	X	X	X	X	X	X
	AMDAHL	X	X	X	X	X	X	0
Small Systems	DEC	X	X	X	X	X	X	X
	HEWLETT-PACKARD	X	X	X	X	X	X	X
	WANG	X	X	X	X	X	X	X
	TANDEM	X	X	X	X	X	X	0
	UNIVAC	X	X	X	0	X	X	X
Term. Systems	NIXDORF	X	X	X	0	X	X	X
	NORTHERN TELECOM	X	X	X	X	X	X	0
	07	X	X	X	X	X	X	0

## CATEGORIES OF SOFTWARE OFFERED BY SOFTWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	X	X	X	X	0
	CULLINANE	0	0	X	X	X	X	X
	PANSOPHIC	0	X	0	X	X	0	0
	MRI	0	0	X	0	0	X	0
	SOFTWARE AG	0	0	X	X	0	X	X
	COMPUTER ASSOCIATES	0	0	0	X	X	0	0
	TURNKEY SYSTEMS	0	0	X	X	0	X	0
	NCSS	X	X	X	X	X	X	X
	13	0	0	X	X	X	X	X
	14	0	0	X	0	0	X	0
	15	X	0	0	0	0	X	0
	24	X	0	0	X	X	0	0
	25	0	0	0	0	0	0	X

## HARDWARE FIRMS OFFERING SOFTWARE WITH SEPARATE LICENSE FEE ATTACHED

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	X	X	X	X	X	X
	UNIVAC	-/x	-/1	-/x	-/-	-/x	-/x	x/x
	CDC	X	X	X	X	X	X	X
	AMDAHL	2	-	-	-	-	-	-
Small Systems	DEC	x/3	4	X	4	4	X	X
	HEWLETT-PACKARD	-	X	X	-	-	-	X
	WANG	-	5	X	-	-	X	X
	TANDEM	X	X	6	X	-	X	0
	UNIVAC	X	X	X	0	X	X	X
Term. Systems	NIXDORF	X	X	X	0	X	X	X
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	X	X	X	X	X	X	0

EXHIBIT IV-2 (CONTD.)

HARDWARE FIRMS OFFERING SOFTWARE WITH  
SEPARATE LICENSE FEE ATTACHED - (FOOTNOTES)

1. Compilers are offered with a separate license fee attached, but assemblers are not. The assemblers are required to maintain the operating systems, and so the price is included in the license for the operating systems.
2. Operating systems are included in the hardware price. However, AMDAHL's DPME, MVS-SEA, and AIDS packages have separate license fees. AMDAHL classifies these packages under operating systems as extensions.
3. OEM's can buy hardware without the operating system on System 2, or with the operating system included in the hardware price.
4. DEC includes the fees for compilers./assemblers, programming/conversion aids, and sort/merge and other utilities in the license fee for operating systems.
5. Wang has a separate license for the first compiler only. There is no fee or license for assemblers.
6. Tandem communications packages can be obtained either with a separate license or bundled with the hardware price.

## EXHIBIT IV-3

## HARDWARE FIRMS OFFERING SOFTWARE BY LEASE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	X	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	X	X	-	0	-	X	X
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	1	1	1	1	1	1	0

1. Minimum term for leased software is three months.



## HARDWARE FIRMS OFFERING SOFTWARE BY MONTHLY PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x= System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	X	X	X	X	X	X
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	X	-	-	-	-	X
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	X	X	-	-	X	X
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	X	X	X	0	X	X	X
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

## HARDWARE FIRMS OFFERING SOFTWARE

BY ANNUAL PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-/x	-/x	-/x	-/-	-/x	-/x	X
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

## HARDWARE FIRMS OFFERING SOFTWARE BY PAID-UP LICENSE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	X
	CDC	X	1	X	X	X	X	1
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	X	X	-	-	X	X
	TANDEM	X	X	2	X	-	X	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	X	X	X	X	X	X	0

1. CDC requires the user to pay a monthly usage charge on compilers/assemblers and applications packages in addition to the paid up license fee.
2. Tandem offers communications packages which can either have a separate paid up license or be bundled with the hardware price.

## HARDWARE FIRMS OFFERING SOFTWARE FOR PURCHASE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x= System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	1
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	2	X	X	-	-	X	X
	HEWLETT-PACKARD	-	X	X	-	-	-	X
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	X	X	X	0	X	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

1. Honeywell applications packages are offered for purchase, but there is also an additional monthly royalty fee.
2. DEC OEM's can either purchase operating systems or obtain them included with hardware.

SOFTWARE FIRMS OFFERING SOFTWARE WITH  
SEPARATE LICENSE FEE ATTACHED

<p>KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2</p>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	X	X	X	X	0
	CULLINANE	0	0	X	X	X	X	X
	PANSOPHIC	0	X	0	X	X	0	0
	MRI	0	0	X	0	0	X	0
	SOFTWARE AG	0	0	X	X	0	X	X
	COMPUTER ASSOCIATES	0	0	0	X	X	0	0
	TURNKEY SYSTEMS	0	0	X	X	0	X	0
	NCSS	X	X	X	X	X	X	X
	13	0	0	X	X	X	X	X
	14	0	0	X	0	0	X	0
	15	X	0	0	0	0	X	0
	24	X	0	0	X	X	0	0
	25	0	0	0	0	0	0	X



## SOFTWARE FIRMS OFFERING SOFTWARE BY LEASE

<p>KEY: X = Affirmative  - = Negative  0 = No Product  x/= System 1  /x = System 2</p>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	1	1	1	1	0
	CULLINANE	0	0	2	2	2	2	2
	PANSOPHIC	0	3	0	3	3	0	0
	MRI	0	0	4	0	0	4	0
	SOFTWARE AG	0	0	5	5	0	5	5
	COMPUTER ASSOCIATES	0	0	0	1	1	0	0
	TURNKEY SYSTEMS	0	0	4	4	0	4	0
	NCSS	6	6	6	6	6	6	6
	13	0	0	7	7	7	7	7
	14	0	0	8	0	0	8	0
	15	9	0	0	0	0	9	0
	24	10	0	0	10	10	0	0
	25	0	0	0	0	0	0	-

EXHIBIT IV-9 (CONTD.)

SOFTWARE FIRMS OFFERING SOFTWARE BY LEASE - (FOOTNOTES)

1. One to three years.
2. Up-front license fee, then monthly charge plus ten percent (10%) annual use fee, for one to five years.
3. Five years, includes maintenance and non-functional upgrades.
4. One to five years.
5. One to five years, option to convert to purchase.
6. Three to five years.
7. One year only. License extended by annual use fee.
8. Twenty-five year license, annual rental cancellable once a year.
9. One, twelve, or twenty-four month lease.
10. Two years.

## SOFTWARE FIRMS OFFERING SOFTWARE BY MONTHLY PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	X	X	X	X	0
	CULLINANE	0	0	1	1	1	1	1
	PANSOPHIC	0	2	0	2	2	0	0
	MRI	0	0	X	0	0	X	0
	SOFTWARE AG	0	0	3	3	0	3	3
	COMPUTER ASSOCIATES	0	0	0	X	X	0	0
	TURNKEY SYSTEMS	0	0	X	X	0	X	0
	NCSS	X	X	X	X	X	X	X
	13	0	0	-	-	-	-	-
	14	0	0	4	0	0	4	0
	15	X	0	0	0	0	X	0
	24	-	0	0	X	X	0	0
	25	0	0	0	0	0	0	-

1. Receive no training or support.
2. Includes maintenance and non-functional upgrades.
3. Premium paid for month to month license.
4. Twenty-five year license, 30 day cancellable.

## SOFTWARE FIRMS OFFERING SOFTWARE BY ANNUAL PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	1	1	1	1	1
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	X	X	0	X	X
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	2	2	2	2	2
	14	0	0	3	0	0	3	0
	15	X	0	0	0	0	X	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. Up-front license fee, then ten percent (10%) annual use fee includes upgrading and support.
2. Large license payment first year, followed by smaller annual use fee.
- e. Twenty-five year license, cancellable once a year.

## SOFTWARE FIRMS OFFERING SOFTWARE BY PAID-UP LICENSE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	X	X	X	X	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	1	0	1	1	0	0
	MRI	0	0	2	0	0	2	0
	SOFTWARE AG	0	0	-	-	0	-	-
	COMPUTER ASSOCIATES	0	0	0	X	X	0	0
	TURNKEY SYSTEMS	0	0	X	X	0	X	0
	NCSS	X	X	X	X	X	X	X
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	3

1. Maintenance must be paid separately to receive any upgrades, free or charged.
2. Paid up license was 50 years, changed to 7 year renewable to eliminate possibility of 50 year license implying ownership.
3. Maintenance optional.

## SOFTWARE FIRMS OFFERING SOFTWARE BY PURCHASE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	X	X	0	X	X
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	1	0	0	0	0	1	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. Only two features available for purchase; all other features and main products are leased.



SOFTWARE FIRMS OFFERING SOFTWARE  
BY MISCELLANEOUS ARRANGEMENTS

<p>KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2</p>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	1	1	1	1	1
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	-	-	0	-	-
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. Similar to a paid-up license, customers must pay up-front license fee plus 10% annual use fee which includes upgrading and support.

## EXHIBIT IV-15

## HARDWARE FIRMS OFFERING SOFTWARE WITH PRICES INCLUDED

## IN THE HARDWARE PRICE (SYSTEM 1 - EARLIER SYSTEM)

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	-	-	-	-	-	-
	UNIVAC	X	X	X	X	X	X	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	X	X	X	X	X	0
Small Systems	DEC	2	-	-	X	X	-	-
	HEWLETT-PACKARD	X	-	-	X	X	X	-
	WANG	X	3	-	X	X	4	-
	TANDEM	-	-	5	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	X	X	X	X	X	X	0
	07	X	-	-	-	-	-	0

HARDWARE FIRMS OFFERING SOFTWARE WITH PRICES INCLUDED  
IN THE HARDWARE PRICE (SYSTEM 2 - CURRENT SYSTEM)

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	1	-	X	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	X	X	X	X	X	0
Small Systems	DEC	2	-	-	X	X	-	-
	HEWLETT-PACKARD	X	-	-	X	X	X	-
	WANG	X	3	-	X	X	4	-
	TANDEM	-	-	5	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	X	X	X	X	X	X	0
	07	X	-	-	-	-	-	0

HARDWARE FIRMS OFFERING SOFTWARE WITH PRICES  
INCLUDED IN THE HARDWARE PRICE - (FOOTNOTES)

1. Only assemblers are offered with the price included in the hardware cost
2. OEM's can buy hardware with or without the operating system. If obtained with the hardware, the operating system is included in the hardware price. If obtained at a later date it is separately licensed, for both System 1 and System 2. This option is not available to end users.
3. Assemblers do not have a separate license but compilers do. The first assembler is included in the hardware price, any additional assemblers are separately licensed for both System 1 and System 2.
4. The first DBMS/Report Generator is included in the hardware price. Additional packages are separately licensed.
5. Communication packages can be obtained either with a separate license or included in the hardware price.

SOFTWARE FIRMS OFFERING SOFTWARE WITH PRICES INCLUDED  
IN THE HARDWARE PRICE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	1	1	0	1	1
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	2	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

- Typically none; however have been known to include hardware.
- Acquired a firm which leases hardware and includes software in a single charge. Otherwise not applicable.

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## TYPES OF SOFTWARE LICENSE DISCOUNT AVAILABLE FROM HARDWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		DISCOUNT TYPE					
		Volume	Multiple Sites	Multiple Systems	Prepayment	Other	Multiple Copies Furnished?
TYPE OF SUPPLIER							
Large Systems	HONEYWELL	-	-	-	-	-	-
	UNIVAC	-	-	-/x	-	X	-
	CDC	X	-	-	-	-	1
	AMDAHL	-	-	-	-	-	X
Small Systems	DEC	X	-	-	-	-	X
	HEWLETT-PACKARD	X	-	X	-	-	X
	WANG	3	-	-	-	-	2
	TANDEM	-	-	-	-	-	4
	UNIVAC	X	-	-	-	-	X
Term. Systems	NIXDORF	-	-	-	-	-	X
	NORTHERN TELECOM	-	-	-	-	-	X
	07	X	-	-	-	-	X

EXHIBIT IV-18 (CONTD.)

TYPES OF SOFTWARE LICENSE DISCOUNT AVAILABLE FROM HARDWARE FIRMS

(FOOTNOTES)

1. No copies are furnished, and the user is not permitted to make copies. There is no fee to execute licensed software on a back-up CPU/system since the user is not permitted to execute licensed software on any CPU except the one to which the license applies.
2. No copies are furnished, but the user is allowed to make two copies for back-up at no additional fee.
3. Volume discounts are provided in the same way for all software products offered. For the OEM's, volume discounts are based on "total" dollar sales each year for software products, regardless of type.
4. No copies are furnished, but the user is permitted to make back-up copies for the same computer site. Users are not permitted to make copies for other user sites.

## TYPES OF SOFTWARE LICENSE DISCOUNT AVAILABLE

## FROM SOFTWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		DISCOUNT TYPE					
		Volume	Multiple Sites	Multiple Systems	Prepayment	Other	Multiple Copies Furnished?
TYPE OF SUPPLIER							
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-	X	-	-	-	-
	CULLINANE	-	X		-	1	X
	PANSOPHIC	-	X	X	-	-	X
	MRI	-	X	X	-	-	X
	SOFTWARE AG	-	X	-	-	2	3
	COMPUTER ASSOCIATES	-	X	X	-	-	X
	TURNKEY SYSTEMS	-	X	-	-	-	X
	NCSS	X	X	X	-	-	X
	13	4	-	-	-	5	6
	14	-	X	-	-	-	X
	15	-	7	8	-	-	X
	24	-	-	-	-	-	-
	25	9	X	-	-	-	X

TYPES OF SOFTWARE LICENSE DISCOUNT AVAILABLE

FROM SOFTWARE FIRMS - (FOOTNOTES)

1. Only one fee per site, including multiple systems. Twenty five percent (25%) discount on second or more products per site, but full annual renewal fee.
2. With lease, twenty percent (20%) discount on second installation if ordered together or within first year, otherwise ten percent (10%). With purchase, fifty percent (50%) discount on second installation.
3. User can make one backup copy at a single site.
4. Based on units, not dollars.
5. Wholesale price schedule for OEM's, Educational discount to non-profit organizations.
6. OEM's with large volume may be licensed to copy. For End User, multiple copies furnished.
7. Twenty five percent (25%) for second site.
8. Fifty percent (50%) for second system at single site.
9. Multiple package discount.

## TYPES OF LICENSE DISCOUNT OFFERED BY HARDWARE

## FIRMS, LISTED BY PRODUCT TYPE

KEY: - = Negative O = No Product V = Volume S = Multiple Sites C = Multiple CPU's Single Site P = Prepayment		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	C1	C1	C1	1	C1	C1	1
	CDC	V	V	V	V	V	V	V
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	-	V	V	-	-	V	V
	HEWLETT-PACKARD	-	VC	VC	-	-	C	V
	WANG	-	V	V	-	-	V	V
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	V	V	V	-	V	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	V	V	V	V	V	V	0

1. Discounts on all software are granted to educational institutions

TYPES OF LICENSE DISCOUNT OFFERED BY SOFTWARE  
FIRMS, LISTED BY PRODUCT TYPE

KEY: - = Negative O = No Product V = Volume S = Multiple Sites C = Multiple CPU's Single Site P = Prepayment		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	S	S	S	S	0
	CULLINANE	0	0	SC	SC	SC	SC	SC
	PANSOPHIC	0	VSC	0	VSC	VSC	0	0
	MRI	0	0	SC	0	0	SC	0
	SOFTWARE AG	0	0	S	S	0	S	S
	COMPUTER ASSOCIATES	0	0	0	SC	SC	0	0
	TURNKEY SYSTEMS	0	0	S	S	0	S	0
	NCSS	VSC	VSC	VSC	VSC	VSC	VSC	VSC
	13	0	0	V1	V1	V1	V1	V1
	14	0	0	-	0	0	S	0
	15	SC	0	0	0	0	SC	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	VS

1. Wholesaler's discount to OEM's, and discounts to educational and non-profit organizations.



EXHIBIT IV-21

TYPE OF DISCOUNT OFFERED, BY TYPE OF SOFTWARE LICENSE - ABBREVIATIONS

ADR	-	Applied Data Research
CAS	-	Computer Associates
CSS	-	National CSS
CDC	-	Control Data Corporation
CUL	-	Cullinane
DEC	-	Digital Equipment Corporation
MRI	-	Systems Corporation
PAN	-	Pansophic
SAG	-	Software AG
TKS	-	Turnkey Systems
UNI	-	UNIVAC
WNG	-	Wang Labs
07	-	CONFIDENTIAL - Intelligent Terminals Vendor
13	-	CONFIDENTIAL - Software Vendor
14	-	CONFIDENTIAL - Software Vendor
15	-	CONFIDENTIAL - Software Vendor
25	-	CONFIDENTIAL - Software Vendor

## CROSS-TABULATION OF TYPE OF DISCOUNT OFFERED

## AND TYPE OF SOFTWARE LICENSE OFFERED\*

LICENSE TYPE	VOLUME		MULTIPLE		MULTIPLE		OTHER	
	DISCOUNT		SITES		SYSTEMS	AT A SITE		
	Hdw. Vend.	Sfw. Vend.	Hdw. Vend.	Sfw. Vend.	Hdw. Vend.	Sfw. Vend.	Hdw. Vend.	Sfw. Vend.
<u>Lease</u>	UNI 07	CSS PAN 13	-	ADR CAS CUL MRI PAN SAG TKS 14 15	-	CAS CSS CUL MRI PAN 15	-	13
<u>Monthly</u>	CDC WNG	CSS PAN	-	ADR CAS CSS CUL MRI PAN SAG TKS 14 15	-	CAS CSS CUL MRI PAN 15	-	-
<u>Annual</u>	-	13	-	CUL SAG 14 15	UNI	CUL 15	UNI	13
<u>Paid Up License</u>	CDC WNG 07	CSS PAN 25	-	ADR CAS CSS MRI PAN TKS 25	UNI	CAS CSS MRI PAN	UNI	-
<u>Purchase</u>	UNI	-	-	SAG 15	-	15	-	-
<u>Other</u>	DEC	-	-	CUL	-	CUL	-	-

\* Of those firms offering a software lease, for example, the listed firms in column one also offer a volume discount, which may or may not apply to the software lease contract.

1. No pre-payment discounts were reported to be in use by either hardware or software vendors.
2. Software vendor category also includes RCS firms.

## RESTRICTIONS OF SOFTWARE LICENSE BY HARDWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		LICENSEE					
		CPU Serial No.	System	User Site	User Firm	Other	Backup Operation License Fee?
TYPE OF SUPPLIER							
Large Systems	HONEYWELL	X	-	-	-	-	X
	UNIVAC	X	-	-	-	-	-
	CDC	X	-	-	-	-	-
	AMDAHL	X	-	-	-	-	-
Small Systems	DEC	X	-	-	-	-	-
	HEWLETT-PACKARD	-	X	-	-	-	X
	WANG	X	-	-	-	-	-
	TANDEM	-	-	-	X	-	-
	UNIVAC	X	-	-	-	-	-
Term. Systems	NIXDORF	X	-	-	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-
	07	-	-	-	X	-	X

## RESTRICTIONS OF SOFTWARE LICENSE BY SOFTWARE FIRMS

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		LICENSEE					
TYPE OF SUPPLIER		CPU Serial No.	System	User Site	User Firm	Other	Backup Operation License Fee?
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-	-	X	-	-	-
	CULLINANE	-	-	X	-	-	-
	PANSOPHIC	1	-	X	-	-	2
	MRI	X	-	-	-	-	-
	SOFTWARE AG	..	-	X	-	-	-
	COMPUTER ASSOCIATES	-	-	X	-	-	X
	TURNKEY SYSTEMS	-	-	X	-	-	-
	NCSS	X	-	-	-	-	3
	13	4	-	X	-	-	5
	14	X	-	-	-	-	6
	15	-	-	X	-	-	-
	24	X	-	-	-	-	-
	25	X	-	X	X	-	-

- Former practice dropped because impossible to enforce.
- Very minimal fee.
- Not possible.
- Licensed to customer, restricted to specific machine.
- Same site only, ninety percent (90%) discount.
- Negotiated, allow temporary use only.

## HARDWARE FIRMS FURNISHING SOURCE CODE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	X	X	X	X	X	X	X
	CDC	X	X	X	X	X	X	-
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	x/-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	X
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	1	1	1	-	1	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	X	X	X	X	X	X	0

- UNIVAC - Minicomputer Operations offers two kinds of software:  
 Class 1 - Proprietary Software, for which no source is provided; and  
 Class 2 - Non-proprietary Software marketed on a purchase basis, for  
 which source code is provided at no extra fee.

## SOFTWARE FIRMS FURNISHING SOURCE CODE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	X	X	X	X	0
	CULLINANE	0	0	X	X	X	X	X
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	X	0
	SOFTWARE AG	0	0	-	-	0	-	
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	X	X	0	X	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	X
	14	0	0	-	0	0	-	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	X



EXHIBIT IV-25  
ON-SITE INSTALLATION FURNISHED

KEY: X = Affirmative V = Varies U = Unlimited - = Negative		None	Free or Part of License	Separate Charge	By Software Engineer	Number of Days Free
TYPE OF SUPPLIER						
Large Systems	HONEYWELL	-	-	X	X	0
	UNIVAC	-	X	-	X	2-10
	CDC	-	-	X	3	0
	AMDAHL	-	X	-	X	V
Small Systems	DEC	-	1	X	X	1-15
	HEWLETT-PACKARD	-	X	-	X	V
	WANG	-	X	-	X	15
	TANDEM	-	X	2	4	U
	UNIVAC	-	X	-	X	V
Term. Systems	NIXDORF	X	-	-	-	-
	NORTHERN TELECOM	-	X	-	X	V
	07	-	X	-	5	U

1. Type A license only.
2. With add-on software.
3. Field analyst.
4. 20% of cases, hardware engineer 80% of cases.
5. Systems analyst.

## ON-SITE INSTALLATION FURNISHED

KEY: X = Affirmative V = Varies U = Unlimited - = Negative		None	Free or Part of License	Separate Charge	By Software Engineer	Number of Days Free
TYPE OF SUPPLIER						
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-	X	-	X	1/2-5
	CULLINANE	-	X	-	X	V
	PANSOPHIC	-	X	-	X	3-5
	MRI	-	X	-	X	1
	SOFTWARE AG	-	1	X	X	5
	COMPUTER ASSOCIATES	-	X	-	X	1
	TURNKEY SYSTEMS	-	X	-	X	V
	NCSS	-	X	-	6	15 - 20
	13	-	-	X	X	1
	14	-	X	2	7	10
	15	-	3	4	8	V
	24	-	X	5	X	3
	25	-	X	-	9	5

1. With purchase of complete system.
2. Fixed charge for first time TP user.
3. With purchase.
4. With lease.
5. With first installation, but then no charge for upgrades.

6. Site prep team.
7. Product support specialist.
8. Technical support services.
9. Account manager.

INPUT

## SUPPORT SERVICE OFFERED

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SUPPORT TYPE					
		Applications Design	Applications Programming	Data Center Support	Supervisor Modification	Operations Support	Included In License Fee
TYPE OF SUPPLIER							
Large Systems	HONEYWELL	X	X	X	X	X	-
	UNIVAC	x/-	x/-	x/x	x/x	-	1/1
	CDC	X	X	X	X	X	-
	AMDAHL	-	-	X	X	-	X
Small Systems	DEC	X	X	-	X	X	2
	HEWLETT-PACKARD	X	X	X	X	X	-
	WANG	-	-	X	X	-	3
	TANDEM	X	X	X	X	X	X
	UNIVAC	X	X	-	X	-	-
Term. Systems	NIXDORF	X	X	X	X	X	-
	NORTHERN TELECOM	-	-	-	X	X	-
	O7	X	X	X	X	X	4

1. Design and programming charged separately, negotiated as part of license fee for applications package.
2. Operations support only.
3. Data center support only.
4. Design and programming charged separately.

## SUPPORT SERVICES OFFERED

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SUPPORT TYPE					
		Applications Design	Applications Programming	Data Center Support	Supervisor Modification	Operations Support	Included In License Fee
TYPE OF SUPPLIER							
Software Independents and RCS Companies	APPLIED DATA RESEARCH	X	X	-	X	-	-
	CULLINANE	X	-	-	X	-	1
	PANSOPHIC	-	-	-	-	-	2
	MRI	X	X	-	X	-	-
	SOFTWARE AG	X	-	-	X	-	-
	COMPUTER ASSOCIATES	-	-	-	-	-	-
	TURNKEY SYSTEMS	X	X	-	X	-	-
	NCSS	X	X	-	X	-	-
	13	-	-	X	-	X	3
	14	X	X	-	-	X	X
	15	-	-	X	-	X	4
	24	-	-	-	-	-	-
	25	-	-	-	-	-	-

1. Supervisor modification only.
2. Will modify product for separate fee.
3. First year only.
4. For 2 years, 10% charge thereafter.

TYPES OF SOFTWARE MAINTENANCE CHARGES BY  
HARDWARE FIRMS THAT OFFER SOFTWARE BY LEASE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	I	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	I	I	-	0	-	I	I
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	I	I	I,S	I	I	I	0

TYPES OF SOFTWARE MAINTENANCE CHARGES BY  
HARDWARE FIRMS THAT OFFER SOFTWARE BY MONTHLY PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	I	I	I	I	I	I	S
	UNIVAC	-/I	-/I	-/I	-	-/I	-/I	R/I
	CDC	S	S	S	S	S	S	S
	AMDAHL	-	-	-	-	-	-	-
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	S	S	-	-	-	S
	WANG	-	1	S	-	-	1	S
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	I	I	I	0	I	I	I
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

1. At Wang, the maintenance charge for the first compiler/assembler and data management/query/report generator is bundled into the hardware price.
  - Any additional (B) or (F) category software has a separate charge for maintenance.
  - (B) is required, while (F) is optional.



## TYPES OF SOFTWARE MAINTENANCE CHARGES BY HARDWARE FIRMS

## THAT OFFER SOFTWARE BY ANNUAL PAYMENT

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	R/I
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	-
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

## TYPES OF SOFTWARE MAINTENANCE CHARGES BY HARDWARE

## FIRMS THAT OFFER SOFTWARE BY PAID-UP LICENSE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	-
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	R	S	-	-	S	S
	TANDEM	R	R	R	R	-	R	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	I	I	I, S	I	I	I	0

## TYPES OF SOFTWARE MAINTENANCE CHARGES BY HARDWARE

## FIRMS THAT OFFER SOFTWARE BY PURCHASE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	-	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	1	-	1	-	-	1	1
	HEWLETT-PACKARD	-	S	S	-	-	-	S
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	I	I	I	0	I	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

1. DEC provides separately charged (optional) software maintenance to customers electing not to obtain a license which includes support services. Other customers have maintenance included in the license fee.

TYPES OF SOFTWARE MAINTENANCE CHARGES BY  
SOFTWARE FIRMS THAT OFFER SOFTWARE BY LEASE

<p>KEY: X = Affirmative . - = Negative 0 = No Product x/= System 1 /x = System 2 I = Included R = Required S = Separate</p>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	I	I	I	I	0
	CULLINANE	0	0	R	R	R	R	R
	PANSOPHIC	0	I	0	I	I	0	0
	MRI	0	0	I	0	0	I	0
	SOFTWARE AG	0	0	R,1	R,1	0	R,1	R,1
	COMPUTER ASSOCIATES	0	0	0	I	I	0	0
	TURNKEY SYSTEMS	0	0	I	I	0	I	0
	NCSS	I	I	I	I	I	I	I
	13	0	0	2	2	2	2	2
	14	0	0	S	0	0	S	0
	15	I	0	0	0	0	I	0
	24	I	0	0	I	I	0	0
	25	0	0	0	0	0	0	-

1. Includes technical support and product enhancements.
2. Included first year, thereafter included in annual use charge.

## TYPES OF SOFTWARE MAINTENANCE CHARGES BY SOFTWARE

## FIRMS THAT OFFER SOFTWARE BY MONTHLY PAYMENTS

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x= System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	I	I	I	I	0
	CULLINANE	0	0	S	S	S	S	S
	PANSOPHIC	0	I	0	I	I	0	0
	MRI	0	0	I	0	0	I	0
	SOFTWARE AG	0	0	R,1	R,1	0	R,1	R,1
	COMPUTER ASSOCIATES	0	0	0	I	I	0	0
	TURNKEY SYSTEMS	0	0	I	I	0	I	0
	NCSS	I	I	I	I	I	I	I
	13	0	0	-	-	-	-	-
	14	0	0	S	0	0	S	0
	15	-	0	0	0	0	-	0
	24	-	0	0	I	I	0	0
25	0	0	0	0	0	0	-	

1. Includes technical support and product enhancements.

## TYPES OF SOFTWARE MAINTENANCE CHARGES BY SOFTWARE

## FIRMS THAT OFFER SOFTWARE BY ANNUAL PAYMENT

<b>KEY: X = Affirmative</b> <b>- = Negative</b> <b>0 = No Product</b> <b>x/= System 1</b> <b>/x = System 2</b> <b>I = Included</b> <b>R = Required</b> <b>S = Separate</b>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	R,1	R,1	0	R,1	R,1
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	I	I	I	I	I
	14	0	0	S	0	0	S	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. Includes technical support and product enhancements.



## TYPES OF SOFTWARE MAINTENANCE CHARGES BY SOFTWARE

## FIRMS THAT OFFER SOFTWARE BY PAID-UP LICENSE

<b>KEY: X = Affirmative</b> <b>- = Negative</b> <b>0 = No Product</b> <b>x/= System 1</b> <b>/x= System 2</b> <b>I = Included</b> <b>R = Required</b> <b>S = Separate</b>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	S,1	S,1	S,1	S,1	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	S	0	S	S	0	0
	MRI	0	0	S,2	0	0	S,2	0
	SOFTWARE AG	0	0	-	-	0	-	-
	COMPUTER ASSOCIATES	0	0	0	S,2	S,2	0	0
	TURNKEY SYSTEMS	0	0	S	S	0	S	0
	NCSS	S	S	S	S	S	S	S
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	3	0	0	0	0	3	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	S

1. If off maintenance, must pay all back fees and upgrade to current level.
2. If off maintenance, must pay all back fees.
3. Included first two years, optional thereafter.

## TYPES OF SOFTWARE MAINTENANCE CHARGES BY SOFTWARE

## FIRMS THAT OFFER SOFTWARE BY PURCHASE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2 I = Included R = Required S = Separate		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLNANE	0	0	-	-	-	-	-
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	R,1	R,1	0	R,1	R,1
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	2	0	0	0	0	2	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. Includes technical support and product enhancements.
2. Included first two years, optional thereafter.

TYPES OF SOFTWARE MAINTENANCE CHARGES BY SOFTWARE  
FIRMS THAT OFFER SOFTWARE BY MISCELLANEOUS ARRANGEMENTS

<p>KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x= System 2 I = Included R = Required S = Separate</p>		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	1	1	1	1	1
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	-	-	0	-	-
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	-

1. All agreements which include the annual renewal fee receive maintenance.

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## FORM OF RESPONSE TO TROUBLE REPORT

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		RESPONSE TYPE					
		On-Site Aid	Phone	Letter	Newsletter	Next Maintenance Release	On-Site Contract Response Time
Large Systems	HONEYWELL	1	1	1	1	1	1
	UNIVAC	-	-	X	-	-	0
	CDC	-	X	-	-	X	2
	AMDAHL	-	-	-	-	3	0
Small Systems	DEC	-	4	X	-	X	0
	HEWLETT-PACKARD	X	X	X	-	X	0
	WANG	X	-	-	-	X	0
	TANDEM	X	4	-	-	-	2
	UNIVAC	X	X	X	-	X	0
Term. Systems	NIXDORF	X	X	-	-	-	0
	NORTHERN TELECOM	X	X	X	-	-	0
	O7	X	X	X	X	X	2

1. Not disclosed.
2. Negotiated.
3. IBM PTF.
4. Telecom remote fix.

## FORM OF RESPONSE TO TROUBLE REPORT

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		RESPONSE TYPE					
		On-Site Aid	Phone	Letter	Newsletter	Next Maintenance Release	On-Site Contract Response Time
TYPE OF SUPPLIER							
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-	X	-	-	X	1
	CULLINANE	X	X	-	X	X	1
	PANSOPHIC	-	X	-	-	-	0
	MRI	-	X	X	X	-	0
	SOFTWARE AG	X	2	X	X	-	0
	COMPUTER ASSOCIATES	-	X	X	-	X	0
	TURNKEY SYSTEMS	1	X	X	-	-	0
	NCSS	-	3	-	-	X	0
	13	X	X	-	X	-	0
	14	X	X	-	-	X	0
	15	X	X	X	X	X	0
	24	-	-	-	-	X	0
	25	X	2	X	X	X	0

1. Negotiated.
2. Telecom remote diagnosis.
3. Telecom remote fix.



## MATERIALS FURNISHED WITH NEW PRODUCT VERSIONS/RELEASES

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		Manual & Updates	Machine Readable Media	On-Site Installation Support	Phone-In Service	Product Fixes	Product Updates	Newsletters
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	X	-	-	X	-	X
	UNIVAC	X	X	X	X	X	X	X
	CDC	X	X	-	-	X	-	X
	AMDAHL	X	X	X	X	X	X	X
Small Systems	DEC	X	X	1	1	X	1	1
	HEWLETT-PACKARD	X	2	X	3	3	X	X
	WANG	X	X	X	X	X	X	-
	TANDEM	X	X	X	X	X	X	-
	UNIVAC	X	X	-	-	X	X	-
Term. Systems	NIXDORF	X	X	-	X	X	X	X
	NORTHERN TELECOM		N O T	D I	S C L	O S E D		
	07	X	X	1	X	X	X	-

1. Only certain contracts.
2. Firmware if appropriate.
3. Optional extra charge.

## MATERIALS FURNISHED WITH NEW PRODUCT VERSIONS/RELEASES

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		Manual & Updates	Machine Readable Media	On-Site Installation Support	Phone-In Service	Product Fixes	Product Updates	Newsletters
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-	X	-	-	-	-	-
	CULLINANE	-	X	-	-	-	-	-
	PANSOPHIC	-	X	-	-	-	-	-
	MRI	X	X	-	-	-	-	-
	SOFTWARE AG	X	X	X	X	X	X	X
	COMPUTER ASSOCIATES	X	X	-	-	-	-	-
	TURNKEY SYSTEMS	-	X	-	-	-	-	-
	NCSS	-	X	-	-	-	-	-
	13	X	X	X	X	X	X	X
	14	X	X	X	X	X	X	X
	15	X	X	1	X	X	X	X
	24	X	X	X	X	X	X	X
	25	X	X	X	X	X	X	X

1. If requested, extra fee.

HARDWARE FIRMS OFFERING SOFTWARE MAINTENANCE WITH  
MAINTENANCE PRICE INCLUDED IN HARDWARE PRICE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	x/-	X	x/-	x/-	x/-	x/-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	X	X	X	X	X	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	X	-	-	X	X	X	-
	WANG	X	X	-	X	X	X	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	X	X	X	X	X	0
	07	-	-	-	-	-	-	0

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## HARDWARE FIRMS OFFERING SOFTWARE

WITH NO MAINTENANCE WHATSOEVER AVAILABLE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	-	-	-	-	-	-	-
	UNIVAC	-	-	-	X	-	-	-
	CDC	-	-	-	-	-	-	-
	AMDAHL	-	-	-	-	-	-	0
Small Systems	DEC	-	-	-	-	-	-	-
	HEWLETT-PACKARD	-	-	-	-	-	-	-
	WANG	-	-	-	-	-	-	-
	TANDEM	-	-	-	-	-	-	0
	UNIVAC	-	-	-	0	-	-	-
Term. Systems	NIXDORF	-	-	-	0	-	-	-
	NORTHERN TELECOM	-	-	-	-	-	-	0
	07	-	-	-	-	-	-	0

SOFTWARE FIRMS OFFERING SOFTWARE WITH  
NO MAINTENANCE WHATSOEVER AVAILABLE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	-	-	-	-	0
	CULLINANE	0	0	-	-	-	-	-
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	-	-	0	-	-
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	-	-	-	-
	14	0	0	-	0	0	-	0
	15	-	0	0	0	0	-	0
	24	-	0	0	-	-	0	0
	25	0	0	0	0	0	0	1

1. Only packages for non-designated hardware do not receive maintenance.



## HARDWARE FIRMS OFFERING ON-SITE MAINTENANCE OF SOFTWARE

KEY: X = Affirmative - = Negative 0 = No Product x/ = System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	X	X	X	X	X	X	X
	UNIVAC	X	X	X	-	X	X	X
	CDC	X	X	X	X	X	X	X
	AMDAHL	X	X	X	X	X	X	0
Small Systems	DEC	X	X	X	X	X	X	X
	HEWLETT-PACKARD	X	X	X	X	X	X	X
	WANG	X	X	X	X	X	X	X
	TANDEM	X	X	-	X	X	X	0
	UNIVAC	X	X	X	0	X	X	X
Term. Systems	NIXDORF	X	X	X	0	X	X	X
	NORTHERN TELECOM	X	X	X	X	X	X	0
	07	X	X	X	X	X	X	0

## SOFTWARE FIRMS OFFERING ON-SITE MAINTENANCE OF SOFTWARE

KEY: X = Affirmative - = Negative 0 = No Product x/= System 1 /x = System 2		SOFTWARE CATEGORY						
		A	B	C	D	E	F	G
		Operating Systems	Compilers/ Assemblers	Communications	Programming/ Conversion Aids	Sort/Merge & Other Utilities	Data Mgmt./Query/ Report Generators	Application Packages
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	0	0	1	1	1	1	0
	CULLINANE	0	0	1	1	1	1	1
	PANSOPHIC	0	-	0	-	-	0	0
	MRI	0	0	-	0	0	-	0
	SOFTWARE AG	0	0	2	2	0	2	2
	COMPUTER ASSOCIATES	0	0	0	-	-	0	0
	TURNKEY SYSTEMS	0	0	-	-	0	-	0
	NCSS	-	-	-	-	-	-	-
	13	0	0	-	X	X	X	X
	14	0	0	3	0	0	3	0
	15	X	0	0	0	0	X	0
	24	X	0	0	X	X	0	0
	25	0	0	0	0	0	0	X

1. Only by very special arrangement.
2. Typically done by mail.
3. If necessary to resolve problem (not a contract).

EXHIBIT IV-43  
EDUCATION SERVICES AVAILABLE

KEY: X = Affirmative - = Negative 0 = No Product		Vendor's Site/User's Site	Audio/Visual Media	Instruction Manuals	Free	Credit With License	Fee	User Group/ Membership Fee
TYPE OF SUPPLIER								
Large Systems	HONEYWELL	x/x	X	X	-	-	X	x/x
	UNIVAC	x/x	X	X	-	-	X	x/x
	CDC	x/x	X	X	-	1	X	x/x
	AMDAHL	x/x	X	X	-	-	X	x/-
Small Systems	DEC	x/x	X	X	-	X	X	x/x
	HEWLETT-PACKARD	x/x	-	X	-	-	X	x/x
	WANG	x/x	X	X	-	2	X	x/x
	TANDEM	x/3	X	X	-	3	X	x/
	UNIVAC	x/x	-	-	-	-	X	x/x
Term. Systems	NIXDORF	x/x	-	X	X	-	-	x/-
	NORTHERN TELECOM	x/x	X	-	-	-	X	-
	07	x/x	X	X	-	-	X	x/x

1. Paid-up license only.
2. Applications license only.
3. If negotiated.

## EDUCATION SERVICES AVAILABLE

KEY: X = Affirmative - = Negative 0 = No Product		Vendor's Site/User's Site	Audio/Visual Media	Instruction Manuals	Free	Credit With License	Fee	User Group/ Membership Fee
TYPE OF SUPPLIER								
Software Independents and RCS Companies	APPLIED DATA RESEARCH	-/x	-	-	X	-	X	x/x
	CULLINANE	x/x	-	x	X	-	X	x/x
	PANSOPHC	-/x	X	X	X	-	-	x/x
	MRI	x/x	X	X	X	-	X	x/x
	SOFTWARE AG	x/x	X	X	1	-	X	x/-
	COMPUTER ASSOCIATES	-/x	X	X	X	-	-	-
	TURNKEY SYSTEMS	x/x	X	-	X	-	X	x/x
	NCSS	x/x	X	X	X	-	X	-
	13	x/x	X	X	2	-	X	x/x
	14	x/x	-	X	X	-	X	x/
	15	-/x	X	X	2	-	X	x/-
	24	-/x	X	X	-	X	-	-
25	x/x	X	X	X	-	-	x/	

1. With purchase only.
2. At installation only.



## APPENDIX A





# HARDWARE RESPONDENTS AND SYSTEMS

<u>FIRM</u>	<u>CODE NO.</u>	<u>EARLIER SYSTEM</u>	<u>CURRENT SYSTEM</u>
HONEYWELL	(08)	Level 66	DPS-8
UNIVAC	(02)	1100/80	1100/60
CDC	(05)	CYBER 175-III	CYBER 170/Series 700
AMDAHL	(11)	470V/5	470V/8
DEC	(03)	11/70	VAX 11-780
HEWLETT-PACKARD	(09)	HP-3000	HP 300
WANG	(04)	2200VS	VS-100
TANDEM	(06)	T-16	T-16
UNIVAC	(12)	V77-600	V77-800
NIXDORF	(01)	600 Series	8870
NORTHERN TELECOM	(10)	405	445
ANONYMOUS	(07)	—	—

## SOFTWARE RESPONDENTS

<u>FIRM</u>	<u>CODE NO.</u>
APPLIED DATA RESEARCH	(23)
CULLINANE	(18)
PANSOPHIC	(17)
MRI	(22)
SOFTWARE AG	(16)
COMPUTER ASSOCIATES	(20)
TURNKEY SYSTEMS	(21)
NATIONAL CSS	(19)
ANONYMOUS	(13)
ANONYMOUS	(14)
ANONYMOUS	(15)
ANONYMOUS	(24)
ANONYMOUS	(25)

## APPENDIX B



INPUT is studying changes and trends that are occurring in the terms and conditions associated with software products, both as they are marketed with hardware and as they are available separately. Most of the questions refer to public information, but if any of the information that we are requesting is proprietary to your company, please indicate that fact.

### GENERAL

1. (Hardware Vendors Only). For the purpose of identifying trends, we have selected \_\_\_\_\_ (Hardware System 1) and \_\_\_\_\_ (Hardware System 2) as typical of your earlier and current policies, respectively, in marketing software. Do you agree?

( ) YES ( ) NO ( ) N/A

If no or not applicable, explain: \_\_\_\_\_  
\_\_\_\_\_

- 1a. (Software Vendors Only). Are any of your products marketed differently as far as terms and conditions are concerned?

( ) YES ( ) NO ( ) N/A

If yes, please explain and identify which products represent your earlier practice (System 1) versus your current practice (System 2). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Is there any difference in the terms and conditions associated with software as you apply them to OEM's versus End.Users? (If so, please indicate the differences when they apply.)

( ) YES ( ) NO ( ) N/A

If not applicable, explain: \_\_\_\_\_  
\_\_\_\_\_



3. We are interested in the following categories of software products. Which of these do you offer?
- |  | WITH<br><u>SYSTEM 1</u> | WITH<br><u>SYSTEM 2</u> |
|--|-------------------------|-------------------------|
| A. Operating Systems                           | _____                   | _____                   |
| B. Compilers/Assemblers                        | _____                   | _____                   |
| C. Communications                              | _____                   | _____                   |
| D. Programming/Conversion Aids                 | _____                   | _____                   |
| E. Sort/Merge & Other Utilities                | _____                   | _____                   |
| F. Data Management/Query/<br>Report Generators | _____                   | _____                   |
| G. Application Packages                        | _____                   | _____                   |
4. Within these categories are all products treated the same way as far as terms and conditions are concerned? If not, please explain.

( ) YES ( ) NO

LICENSING

5. Which of these products are offered with a separate license fee attached?

	<u>SYSTEM 1</u>	<u>SYSTEM 2</u>
A.	_____	_____
B.	_____	_____
C.	_____	_____
D.	_____	_____
E.	_____	_____
F.	_____	_____
G.	_____	_____

5a What types of license are available?

SYSTEM 1

	A	B	C	D	E	F	G
Lease_____Years	( )	( )	( )	( )	( )	( )	( )
Monthly Payment	( )	( )	( )	( )	( )	( )	( )
Annual Payment	( )	( )	( )	( )	( )	( )	( )
Paid Up License	( )	( )	( )	( )	( )	( )	( )
Purchase	( )	( )	( )	( )	( )	( )	( )
Other, explain	( )	( )	( )	( )	( )	( )	( )

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SYSTEM 2

	A	B	C	D	E	F	G
Lease_____Years	( )	( )	( )	( )	( )	( )	( )
Monthly Payment	( )	( )	( )	( )	( )	( )	( )
Annual Payment	( )	( )	( )	( )	( )	( )	( )
Paid Up License	( )	( )	( )	( )	( )	( )	( )
Purchase	( )	( )	( )	( )	( )	( )	( )
Other, explain	( )	( )	( )	( )	( )	( )	( )

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6. Which of these products are offered with the price included in the hardware price?

SYSTEM 1

SYSTEM 2

A.	_____	_____
B.	_____	_____
C.	_____	_____

D.	_____	_____
E.	_____	_____
F.	_____	_____
G.	_____	_____

7. Are certain software products only offered as a package with a fixed price for the total package?

( ) YES ( ) NO

If yes, please give examples:

<u>PRODUCTS</u>	<u>SYSTEM</u>	<u>PACKAGE PRICE (\$/YR.)</u>
-----------------	---------------	-------------------------------

8. Which types of discount or other financial incentives are available?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
( )	( )	(a) Volume
( )	( )	(b) Multiple Sites*
( )	( )	(c) Multiple Systems at a site*
( )	( )	(d) Prepayment
( )	( )	(e) Other (Specify): _____
( )	( )	_____
( )	( )	(f) None.

\*Are multiple copies furnished, or is the user permitted to copy the distribution media? \_\_\_\_\_

\_\_\_\_\_

9. To which types of software do these discounts or financial incentives apply?  
(1=System 1, 2=System 2, 3=Both)

	(a)	(b)	(c)	(d)	(e)	(f)
A.	_____	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	_____	_____
E.	_____	_____	_____	_____	_____	_____
F.	_____	_____	_____	_____	_____	_____
G.	_____	_____	_____	_____	_____	_____

10. To whom/what is the software licensed?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
( )	( )	CPU Serial Number
( )	( )	System
( )	( )	User Site
( )	( )	User Firm
( )	( )	Other (Specify) _____
( )	( )	Not Applicable

11. How do you enforce licensing restrictions?

12. Is there a fee to execute licensed software on a backup CPU/system?

( ) YES ( ) NO ( ) N/A

13. Do you offer financial incentives for a customer to upgrade from one licensed product to another? Describe, if applicable.

( ) YES ( ) NO ( ) N/A

14. Is any of your software ever delivered in source code? If so, which? Under what conditions?

	<u>DELIVERED</u>	<u>NORMALLY</u>	<u>EXTRA FEE</u>	<u>NEED TO KNOW</u>
A. 1,2 or NO				
B. 1,2 or NO				
C. 1,2 or NO				
D. 1,2 or NO				
E. 1,2 or NO				
F. 1,2 or NO				
G. 1,2 or NO				

15. Is your firm's software copyrighted? ( ) YES ( ) NO  
If yes, how do you enforce it? \_\_\_\_\_  
\_\_\_\_\_

16. How many copies of related software documentation are provided free with the software?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
( )	( )	None
( )	( )	One
( )	( )	Two
( )	( )	3 - 5
( )	( )	6 - 10
( )	( )	_____ (How many?)
( )	( )	Unlimited

INSTALLATION

17. Is on-site installation service available?

SYSTEM 1SYSTEM 2

( )

( )

No (Skip to Question 21)

( )

( )

Free, or part of license agreement.

( )

( )

Separately charged.

( )

( )

Furnished by a third party.

Explain. \_\_\_\_\_

\_\_\_\_\_

18. Who from your firm (or a third party) performs the software installation?

OUR FIRMSYSTEM 1SYSTEM 2

( )

( )

Salesman.

( )

( )

Hardware Engineer.

( )

( )

Software Engineer.

( )

( )

Other. (Specify below)

( )

( )

Not Applicable.

\_\_\_\_\_  
\_\_\_\_\_THIRD PARTYSYSTEM 1SYSTEM 2

( )

( )

Salesman.

( )

( )

Hardware Engineer.

( )

( )

Software Engineer.

( )

( )

Other. (Specify below)

( )

( )

Not Applicable.

\_\_\_\_\_  
\_\_\_\_\_



19. How much free installation support is provided?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
(    )	(    )	None.
_____	_____	Days/Month
_____	_____	For how many months.
(    )	(    )	Varies by product. Explain.

20. Is there an acceptance period? If so, how long is it?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
_____	_____	Days

21. Is the software warranted?

	<u>SYSTEM 1</u>		<u>SYSTEM 2</u>	
Conditions	With Install- ation Service	WO/Install- ation Service	With Install- ation Service	WO/Install- ation Service
Yes/No	_____	_____	_____	_____
For How Long?	_____	_____	_____	_____
Starting	_____	_____	_____	_____

22. What does the warranty cover?

System 1 with installation service: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

System 1 without installation service: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

System 2 with installation service: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

System 2 without installation service: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

23. What support services are available?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
-----------------	-----------------	--

( )	( )	Applications Design
( )	( )	Applications Programming
( )	( )	Data Center Support (Vendor Facility)
( )	( )	Supervisor Modification
( )	( )	Operations Support
( )	( )	Other. Explain: _____

24. Which support services are included in the license fee?

<u>SYSTEM 1</u>	<u>SYSTEM 2</u>	
-----------------	-----------------	--

( )	( )	Applications Design
( )	( )	Applications Programming
( )	( )	Data Center Support (Vendor Facility)
( )	( )	Supervisor Modification
( )	( )	Operations Support
( )	( )	Other. Explain: _____
( )	( )	None

MAINTENANCE

25. Referring to question 5a, how is software maintenance charged? (I=Included in software license fee, S=Separately charged but required, O=Optional separate fee, X=Explained below.)

SYSTEM 1

	A	B	C	D	E	F	G
<u>If license fee is:</u>							
Lease	_____	_____	_____	_____	_____	_____	_____
Monthly Payment	_____	_____	_____	_____	_____	_____	_____
Annual Payment	_____	_____	_____	_____	_____	_____	_____
Paid Up License	_____	_____	_____	_____	_____	_____	_____
Purchase	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____

Explanation: \_\_\_\_\_  
\_\_\_\_\_

SYSTEM 2

	A	B	C	D	E	F	G
<u>If license fee is:</u>							
Lease	_____	_____	_____	_____	_____	_____	_____
Monthly Payment	_____	_____	_____	_____	_____	_____	_____
Annual Payment	_____	_____	_____	_____	_____	_____	_____
Paid Up License	_____	_____	_____	_____	_____	_____	_____
Purchase	_____	_____	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____	_____

Explanation: \_\_\_\_\_  
\_\_\_\_\_

26. If maintenance is priced separately, how is it paid?

_____	_____	Monthly
_____	_____	Annually
_____	_____	Other. Specify: _____

27. Is there a minimum term for maintenance/service: If so, what is it?

(    )	(    )	None
_____	_____	Months

28. If applicable, is a hardware maintenance contract a prerequisite for software maintenance?

_____	_____	Yes/No
_____	_____	Not Applicable

29. How many types/levels of software maintenance are available? Describe each level, and relate to System 1 or System 2, if applicable.

30. How long may a user be covered by a maintenance contract after a new release/version if available is he does not upgrade to it?

System 1 \_\_\_\_\_  
\_\_\_\_\_

System 2 \_\_\_\_\_  
\_\_\_\_\_

31. If an on-site software maintenance contract is offered, what are its contractual response times?

SYSTEM 1SYSTEM 2

\_\_\_\_\_

\_\_\_\_\_

Hours/Days

\_\_\_\_\_

\_\_\_\_\_

Not Offered

32. When a user sends in a trouble report, in what form does he get a fix returned?

SYSTEM 1SYSTEM 2

( )

( )

On-Site Aid

( )

( )

Phone

( )

( )

Letter

( )

( )

Newsletter

( )

( )

Next regular maintenance release.

( )

( )

Other. Specify: \_\_\_\_\_

33. Please discuss any applicable variations to #32.

34. What is the average trouble report turn-around from the user's viewpoint?

SYSTEM 1SYSTEM 2

\_\_\_\_\_

\_\_\_\_\_

Days

35. On average, how often do you offer your customers new releases?

SYSTEM 1SYSTEM 2

\_\_\_\_\_

\_\_\_\_\_

Maintenance release every \_\_\_\_\_ months.

\_\_\_\_\_

\_\_\_\_\_

New function version every \_\_\_\_\_ months.

36. Does the customer pay for software functional upgrades? Describe: \_\_\_\_\_  
\_\_\_\_\_

37. What does a user receive with a new version or release of a product to which he is licensed?

SYSTEM 1

SYSTEM 2

( )	( )	Manual, Original & Updates
( )	( )	Machine Readable Media, Original & Updates
( )	( )	On-Site Installation Support
( )	( )	Phone-In Service
( )	( )	Product Fixes
( )	( )	Product Updates
( )	( )	Newsletters, Bulletins
( )	( )	Other. Specify: _____

\_\_\_\_\_

38. If a user has multiple licenses for the same software product, which of the following are available?

SYSTEM 1

SYSTEM 2

( )	( )	Maintenance Price Discount
( )	( )	A Central Maintenance Plan (when user presents an interface to your firm that resembles that of a single license user.)
( )	( )	Question Is Not Applicable



39. Which types of software are offered with the maintenance price included in the hardware price?

SYSTEM 1SYSTEM 2

- |     |     |   |
|-----|-----|---|
| ( ) | ( ) | Not Applicable. (Skip to #41)                 |
| ( ) | ( ) | A. Operating Systems                          |
| ( ) | ( ) | B. Compilers/Assemblers                       |
| ( ) | ( ) | C. Communications                             |
| ( ) | ( ) | D. Programming/Conversion Aids                |
| ( ) | ( ) | E. Sort/Merge or Other Utilities              |
| ( ) | ( ) | F. Data Management/Query/<br>Report Generator |
| ( ) | ( ) | G. Application Packages                       |

40. If any of the above is offered with maintenance included, what is the duration of such offering?

- |     |     |   |
|-----|-----|---|
| ( ) | ( ) | Not Applicable                            |
| ( ) | ( ) | Less Than One Year                        |
| ( ) | ( ) | One Year                                  |
| ( ) | ( ) | For The Duration Of The Hardware Contract |
| ( ) | ( ) | Other. Specify: _____                     |

41. Which types of software are offered with no maintenance whatsoever available?

SYSTEM 1SYSTEM 2

- |     |     |  |
|-----|-----|--|
| ( ) | ( ) | A. Operating Systems                           |
| ( ) | ( ) | B. Compilers/Assemblers                        |
| ( ) | ( ) | C. Communications                              |
| ( ) | ( ) | D. Programming/Conversion Aids                 |
| ( ) | ( ) | E. Sort/Merge or Other Utilities               |
| ( ) | ( ) | F. Data Management/Query/<br>Report Generators |
| ( ) | ( ) | G. Application Packages                        |

42. Can on-site assistance/maintenance be obtained in support of any of the following types of software?

SYSTEM 1SYSTEM 2

- |     |     |  |
|-----|-----|--|
| ( ) | ( ) | A. Operating Systems                           |
| ( ) | ( ) | B. Compilers/Assemblers                        |
| ( ) | ( ) | C. Communications                              |
| ( ) | ( ) | D. Programming/Conversion Aids                 |
| ( ) | ( ) | E. Sort/Merge or Other Utilities               |
| ( ) | ( ) | F. Data Management/Query/<br>Report Generators |
| ( ) | ( ) | G. Application Packages                        |

43. If yes, what is the price of this service in dollars per hour?

SYSTEM 1SYSTEM 2

\_\_\_\_\_ Dollars Per Hour

44. Who would perform this on-site software service?

- |     |     |                       |
|-----|-----|-----------------------|
| ( ) | ( ) | Not Available         |
| ( ) | ( ) | Salesman              |
| ( ) | ( ) | Hardware Engineer     |
| ( ) | ( ) | Software Engineer     |
| ( ) | ( ) | Other. Specify: _____ |

EDUCATION

45. Does your firm offer training in support of your product? How is it provided?

SYSTEM 1SYSTEM 2

( )

( )

Not Offered. (Skip to #48)

( )

( )

Classroom, Vendor's Site

( )

( )

Classroom, User's Site

( )

( )

Audio-Visual Media

( )

( )

Instruction Manuals

( )

( )

Built Into Product

( )

( )

Other. Specify: \_\_\_\_\_

46. If yes, how is it paid for?

( )

( )

Not provided

( )

( )

Free

( )

( )

Credit With License

( )

( )

Training Fee

( )

( )

Both Free &amp; Fee

47. Are education discounts available?

( )

( )

No

( )

( )

Yes. Describe: \_\_\_\_\_

48. Do your customers have a user group? ( ) YES ( ) NO

49. Is there a membership fee? ( ) YES ( ) NO

50. In summary, in your opinion what have been the most significant changes in software terms and conditions that have taken place over the last few years, and why have they occurred?

Licensing Practices \_\_\_\_\_

\_\_\_\_\_

Installation Practices \_\_\_\_\_

\_\_\_\_\_

Maintenance Practices \_\_\_\_\_

\_\_\_\_\_

Education Practices \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

51. In your opinion, what future changes for the software industry do you anticipate in these areas, and why?

Licensing Practices \_\_\_\_\_

\_\_\_\_\_

Installation Practices \_\_\_\_\_

\_\_\_\_\_

Maintenance Practices \_\_\_\_\_

\_\_\_\_\_

Education Practices \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

THANK YOU FOR YOUR PARTICIPATION.







